# Steam Nazigation, Commerce, Finance, Machinery, Mining, Manufactures, New Inventions, Street Railroads.

SECOND QUARTO SERIES .- VOL. XXXIX., No. 2.]

NEW YORK, JANUARY 13, 1883.

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The editor of the Railboad Journal is pleased to receive information of railroad enterprises already entered apon or projected, items regarding the business done on the roads, such as relate to persons employed in the rails road and kindred interests; in short, about all matterwhich the readers of such a paper as this are gratified to find within its columns.

#### ORGANIZATION.

THE directors of the Delaware Western Railroad Company, elected on the 8th inst., are: Robert Garrett, Samuel Spencer and Osmun Latrobe of Baltimore, Perry Belmont of New York, and Victor DuPont and William M. Canby of Wilmington.

THE following gentlemen were elected directors of the New York City and Northern Railway Company on the 8th inst.: B. M. Gallaway, L. May, J. F. de Navarro, J. P. Kennedy, C. F. Woerishoffer, L. C. Livingston, G. J. Foorist, A. V. Stout, C. K. Garrison, A. F. de Navarro, C. C. Leary, M. Wood and J. S. Stout.

The trustees of the Brooklyn City Railroad Company, elected on the 8th inst., are: Seymour L. Husted, James How, George N. Curtis, Alexander Studwell, William H. Husted, Crowell Hadden, William M. Thomas, William H. Hazzard, Joseph Lyman, George W. Bergen, John C. Barron, Ahraham B. Baylis, Daniel F. Lewis.

The stockholders of the West Virginia Central and Pittsburgh Railway Company have elected the following directors for the ensuing year: Alexander Shaw, James G. Blaine, Augustus Schell, S. D. Elkins, William Keyser, J. N. Camden, T. Sickels, William H. Barnum and Thomas B. Davis. The officers are: President, H. G. Davis, and vice-president, S. B. Elkins.

At the annual meeting of the Cleveland and Pittsburgh Railroad Company, held at Cleveland, Ohio, on the 3d inst., the following directors were re-elected: J. N. McCullough, B. F. Jones, George B. Roberts, William Bucknell, Frederick Sturges, S. J. Tilden, Charles Lanier, William C. Eggleston, E. A. Ferguson. J. V. Painter, James F. Clark, R. P. Ranney.

THE stockholders of the Des Moines and Northwestern Railway Company met at Des Moines, Iowa, on the 5th inst., and elected as directors Jay Gould, A. L. Hopkins, Solon Humphreys, James F. Howe, J. S. Runnells, T. M. Hubbell, J. S. Polk, J. S. Clarkson, and C. F. Wick. The road will be finished to its connection with the Northern Pacific and made a broad guage.

At the annual meeting of the Toledo and Indianapolis Railroad Company, recently held in this city, the following directors were elected: T. P. Brown, W. T. Walker, J. K. Hamilton, C. H. Coy, and N. W. Dyer. The officers are: T. P. Brown, president; C. H. Coy, vice-president and treasurer; N. W. Dyer, secretary; P. Dowling, general manager; J. K. Hamilton, general attorney.

Ar the annual election for managers of the Philadelphia and Reading Railroad Company, held in Philadelphia on the 8th inst., the following gentlemen were chosen: Franklin B. Gowen, J. B. Lappincott, Henry Lewis, I. V. Williamson, Eckley B. Coxe, Edward C. Knight, and Joseph B. Altemus. President, Franklin B. Gowen; treasurer, Samuel Bradford; secretary, Albert Foster.

The directors of the Oil City and Chicago Railroad Company, elected on the 8th inst. are: J. W. Jones, Clarence H. Clark, George F. Tyler, E. A. Rollins, B. K. Jamison, Philadelphia; Archer N. Martin, Isaac F. Seligman, Calvin H. Allen, Edward L. Owen, New York; T. P. Pratt, E. P. Beals, Buffalo, N. Y.; William Patterson, New Castle, Pa. President, J. W. Jones; secretary, Joseph R. Trimble,

Ar the annual meeting of the Pittsburgh and Lake Eric Railroad Company, held in Pittsburgh on the 8th inst., the following directors were chosen: Jacob Henrici, David Hostetter, M. W. Watson, James I. Bennett, James M. Bailey, Herbert Dupuy, Ralph Bagaley, John Reeves, James M. Schoonmaker, A. E. W. Painter, J. H. Devereux, John Newell and D. Leet Wilson. President, Jacob Henrici.

The following gentlemen were elected directors of the Buffalo, Pittsburgh and Western Railroad Company on the 8th inst.: J. W. Jones, Clarence H. Clark, George F. Tyler, E. A. Rollins, B. K. Jamison, Philadelphia; Archer N. Martin, Isaac N. Seligman, Calvin H. Allen, Edward L. Owen, New York; P. P. Pratt, E. P. Beals, Buffalo, N. Y.; Foster W. Mitchell, Oil City, Pa. President, J. W. Jones; secretary, Joseph R. Trimble.

Ar a meeting of the stockholders of the Columbus Consolidated Railroad Company, held at Columbus, Ohio, on the 3d inst., A. D. Rodgers, E. T. Mithoff, B. S. Brown, W. B. Hayden, S. S. Rickly, R. Jones, T. P. Gordon, Robert E. Sheldon and E. K. Stewart were elected directors. At a meeting of the directors, A. D. Rodgers was chosen president; H. T. Chittenden, vice-president; and E. K. Stewart, secretary and treasurer.

The directors of the Pittsburgh, Youngstown and Chicago Railroad Company, elected on the 8th inst. are: C. H. Andrews, W. J. Hitchcock and L. E. Cochran, of Youngstown, O.; W. J. McKinnoy, J. H. Wade, William Chisholm and S. S. Evart, of Cleveland; W. S. Bissell, J. A. Caughri, William B. Rodgers and William M. Short, of Pittsburgh, and Robert Garrett, of Baltimore. President, C. H. Andrews. The general manager reported that the construction party had begun laying rails.

The directors of the Pittsburgh and Western Railroad Company, elected on the 8th inst., are: James Callery, J. W. Chalfant, M. K. Moorhead, A. M. Marsh, Jacob Painter, Jr., James Callery and H. W. Oliver, Jr., of Pittsburght Solon Humphreys, Walston H. Brown, John E. Downing, Anthony I. Thomas, Russell Sage and John T. Terry, of New York. President, James Callery. This road was lately changed from a narrow to the standard gauge, and is an important link on the Wabash system.

THE directors of the New York Canal and Railroad Company, elected on the 8th inst., are: Asa Packer, Robert H. Sayre, Charles Hartshorne, Victor E. Piollet, Garrett B. Lindeman, H. E. Packer, Robert Lockart, Wm. H. Sayre, Elisha P. Wilbur, James I. Blakeslee, Howard Elmer, Elisha Hancock and Frederick Mercur. President, Asa Packer. The traffic agreement of this company with the New York, Lake Eric and Western Railroad Company has been renewed with enlarged privileges.

The Board of Directors of the New York Chicago and St. Louis Railway Company is now constituted as follows: Cornelius Vanderbilt William K. Vanderbilt, H. McK. Twombly, William C. Whitney, Augustus Schell and James Tillinghast, New York; J. H. Devereux, Stevenson Burke, J. H. Wade, Charles Hickox and D. W. Caldwell, Cleveland; Amos Sprague, Chicago; and George J. Magee, Watkins, N. Y. Excepting Gen. Devereux and Judge Burke, who were elected directors a few weeks ago, the only members of the former Board now a

director is L. W. Caldwell. William K. Vanderbilt was elected President.

THE stockholders of the New York, Pittsburgh and Chicago Railroad Company met in Pittsburgh on the 8th inst. and elected the following board of directors. H. E. Collins, W. N. Riddle, W. E. Schmertz, D. W. C. Carroll and James I. Negley, of Pittsburgh; Henry Day, W. S. Gurnee, Thomas P. Simpson and F. W. Lockwood, of New York; Charles Siedel, of Jersey City; James S. Robinson, of Kenton, O., and Louis Scott, of Waynesburg, O. President, James I. Negley. The work of construction is reported to be advancing favorably.

At the annual meeting of the stockholders of the Philadelphia, Wilmington and Baltimore Railroad Company, held at Wilmington, Del., on the 8th inst., the following board of directors was elected: Isaac Hinckley, S. M. Felton, S. M. Shoemaker, Jacob Tome, Charles Warner, Wm. Sellers, Christian Febiger, George C. Roberts, Frank Thomson, John P. Green, J. N. DuBarry, Wistar Morris, Edmund Smith, Henry M. Phillips and Benjamin F. Newcomer. At a subsequent meeting of the directors the following officers were chosen: President, Isaac Hinckley; vice-president, Frank Thomson, in place of A. J. Cassatt; secretary and treasurer, Robert Craven.

#### CONSTRUCTION.

One hundred men are said to be at work on the Reading, Marietta and Hanover Railroad.

THE narrow-gauge railroad from Hiram to Bridgton, Me., is now laid to within less than four miles of Bridgton Village.

Four miles of the Essex Center cut-off are double-tracked. The remaining distance will be completed as soon as possible.

THE last spike has been driven in the rails of the new railroad at Woodstown, N. J. If the weather is favorable the road will be ballasted and opened for travel on the 15th inst.

THE New York, Chicago and St. Louis Railway has made a connection with the Baltimore and Ohio north of Monroeville, and is now constructing a connection with the Wheeling and Lake Erie at Bellevue.

Ir is expected that the Atlantic and Pacific Railroad will be completed to the junction with the Southern Pacific Railroad near the Colorado River, about the middle of March, and soon thereafter through trains to the Pacific coast will be put on.

THE Pennsylvania Railroad Company is laying a second track along the Raritan Canal bank, on the upper Delaware river, between Bordentown and Trenton, N. J. The single track line already there is insufficient to accommodate the increased traffic.

The extension of the Pittsburgh, McKeesport and Youghicgheny up the Monongahela from McKeesport is located as far as Cheat River, and the intention is to extend it on to the Virginia iron, timber and coal fields, and to finally connect one of the southern systems of roads.

A comps of surveyors of the Baltimore and Potomac Bailroad Company have commenced

the permanent location of the Catonsville Short Line Railroad. It will be four miles long, connecting with the Baltimore and Potomac tracks. The distance from Catonsville to Calvert Station will be nine miles.

THE New Orleans Times-Democrat says it is more than probable, although no definite information has yet been received, that the line of the New Orleans and Mississippi Valley Railroad will pass to the eastward of Natchez. The location of the line is now going on from Centerville northward to Vicksburg.

Work was commenced on the 5th inst. placing the wire cable in its proper position on the Union Line's Traction Railway, on Columbia avenue, Philadelphia. All the other apparatus, including the winding machinery, is now completed, and the time occupied in putting the cable in place will determine the date on which the cars will commence running on the new railway.

THE Philadelphia, Norristown and Phoenixville Railroad is to be built in sections, and as fast as one has been finished contracts will be given out for work on the others. Contracts for building the three sections of the road, extending from Fifty-second street, Hestonville, to West Manavunk, have been awarded to Thomas Costigan, P. McManus and Frank Armstrong. The work is now under way and will be rapidly pushed forward.

It is reported that as soon as the port of Soto del Marino is opened by the Mexican government for the importation of railroad material, work will begin on the New York, Texas and Mexican main line from Soto del Marino to Tampico, and from Victoria to Brownsville, Texas. A contract for a large number of ties has already been let. It is stated also that Palmer & Sullivan have made arrangements with the Mexican government for the completion of the Matamoras and Monterey Railroad.

THE Pennsylvania Railroad Company has ordered \$1,000,000 to be expended in the grades of the West Penn. Railroad from Blairsville. Indiana county, to Butler, in order that it may be made a low grade road. At Butler it strikes the West Penn, and Shenango Connecting Railroad, which unites the Pennsylvania system with the Shenango and Allegheny system, the latter system uniting with the Erie and Pittsburg system. It is thought probable that when the combined systems of railroads are in operation, about June 1, the entire tonnage of iron ores that is brought from the lakes and worked into metal at Johnstown will be brought over these systems, the grades being more favorable and the distance shorter than by the routes now

THE Des Moines, Osceola and Southern Railroad has reached Davis City, in Decatur county, Iowa, ninety miles from Des Moines. It crosses the Chicago, Burlington and Quincy at Osceola and Humeston, and the Wabash at Van Wert. At Davis City it connects with the Des Moines and St. Joseph line of the Chicago, Burlington and Quincy. It will be extended to St. Joseph the present year, the money being already provided for that purpose, which will give a direct narrow-gauge road between Des Moines and St. Joseph, 180 miles long, and

passing through a very rich country. Traffic arrangements have been made with the Chicago, Rock Island and Pacific by which freight will be billed from any station to any station on either road, and passengers will be sold tickets in like manner.

THE Mexican Financier says that the city of Pachuca has been united by rail with the Mexican Railroad at Irolo that the International Construction Co. is steadily advancing from Piedras Negras, on the Rio Grande, and is everywhere received with demonstrations of immense popular enthusiasm and approval; that the building of the Tehuantepec Railroad is pushing on from Salina Cruz under the direction of Government engineers-1,000 men being at work along a stretch of twenty-five miles: that a concession has been granted for a railroad connecting the cities of Mexcanu and Ticul; and that the anniversary of the founding of the city of Merida, Yucatan, was to have been celebrated on the 6th inst. by the formal opening of the railroad from Peto, the branchline from Acanchec to Tecoh, the railroad from Calkini to Merida, from Merida to Ilman, and the road from Merida to Conchal.

#### Legal Wrongs Spring only from the Neglect of Legal Duties.

In the case of Samuelson, Admx., against the Cleveland Iron Mining Company, the plaintiff was defeated, and she appealed to the Supreme Court of Michigan, which affirmed the judgment. In this case a miner was killed by the falling of the roof of an iron mine, the necessary supports not having been put in place, and his administratrix sued the owner of the property for damages. The mine was worked by contractors under an agreement with the company, by which it was expressly stipulated that, in view of the dangers of mining in that vicinity, the contractors and not the owner should be liable for any injuries to the workmen. The mine was in a safe condition when the contractors took possession of it, but they conducted the work negligently in putting up supports for the roof, which fell in consequence. The lease of the mine provided that the owner should send its superintendent, without charge, to sapervise, advise and direct the precautions to be taken to make the mine safe for working. but no such supervision was exercised. Judge Cooley, in the opinion, said: "If the mine were in unsafe condition when it was handed over to the contractors, and this unsafe condition was known to the company, and if in consequence of that condition a miner was brought there in ignorance of it, and was killed, the company should be held responsible. Every man who expressly or by implication invites others to come upon his premises assumes to all who accept the invitation the duty to warn them of any danger in coming, which he knows of or ought to know of, and of which they are not aware. So long as this mine was worked under the contract, all responsibility for the care and safety of the mine was upon the contractor alone. The matter of supervising the cautionary steps, though neglected, worked no injury to the plaintiff. The company owed him no duty, and legal wrongs spring only from the neglect of legal duties."

#### Canadian Pacific Railway.

On the 1st of January, 1882, the mileage of the Canadian Pacific Railway, constructed and track laid, was as follows:

	les.
Winnipeg to Cross Lake	98 68
Winnipeg to Emerson	68
Winnipeg to west end of track	166
Windipeg to Portage la Prairie (old line)	68
Total, January 1, 1882	400

On the 1st of January, 1883, the mileage completed and track laid, and overwhich trains —freight, passenger and mixed—are continually running is as follows:

Winnipeg to Rat Portage	135
Winnipeg to Emerson	68
Winnipeg to west end of track	605
Winnipeg to Gretna	69
Pembina Mountain Junction, to west end of track.	45
Stonewall Branch	31
	-
Total, January 1, 1883	943
In addition to which the following new a	ahi

In addition to which the following new side tracks have been completed during the year:

			- 1	478	1108.
South of Winnipeg		٠.			234
East of Winnipeg					11%
Southwestern Branch.  Between Winnipeg and Oak Lake	 				3%
Between Winnipeg and Oak Lake	 				6
At Winnipeg	 				10
West of Oak Lake	 • •	• •		•	30
Total					1/
AUMI					53 2%

For every mile of road constructed, 2,640 ties are required, which gives a total of 1,434,520 ties used during the year, and for every mile of track 88 tons of rails are used, giving 47,784 tons of rails on the main lines alone, or taking the sidings and main line together we have, ties 1,564,440 and rails 53,448 tons.

It will thus be seen that since the present Canadian Pacific Railway syndicate took the work in hand it has been pushed forward with surprising rapidity, opening up thousands of acres of new territory to the profit of the Dominion at large, and of Winnipeg and Manitoba particularly.

On the 10th of April, 1882, the line between Cross Lake and the Winnipeg River at Rat Portage was turned over by the Dominion Government to the syndicate, the distance being 37 miles. Track-laying on the Western Division commenced at Oak Lake, and will reach by the 15th inst. a point eight miles west of Maple Creek, which will be 439 miles of Oak Lake, and 605 miles west of Winnipeg, and 55 miles east of the Saskatchewan River. Between the point to which the track is at present laid on the Western extension and the Saskatchewan River, grading has been done in patches to the extent of 15 miles, which leaves 40 miles more grading to be done to complete the line to Leopold, the name of the town which is to be located at the crossing of the Saskatchewan River. On the main line west, 30 miles of siding have been graded and track laid over them which gives 469 miles of track laid west on the train line.

The grading has also been completed and the track laid on the Pembina Mountain section extension 101 miles southwest of Winnipeg, and 14 miles from the junction to connect the section with the main line at Gretna. Grading has also been finished and some of it is ready for track-laying on the line running to West Selkirk on the west side of Red River. During the year the track on the old line between

Stonewall and Portage la Prairie, a distance of 46 miles, was taken up, and the grade on the Air Line was raised throughout its entire distance from three to six feet to guard against and prevent the troublesome experience of last year on that portion of the road during the spring floods.

Besides the work of construction above recounted, three new telegraph wires have been stretched between Brandon and Winnipeg, two between Brandon and Swift Current, two between Winnipeg and Emerson, and two between Winnipeg and Rat Portage, and telegraphic communication is kept up to the end of the track every day. The line has been fenced on both sides between Winnipeg and Emerson, Winnipeg and Portage la Prairie, Winnipeg and Selkirk, and portions between Winnipeg and Rat Portage.

A very large amount of money has been expended on new depots, in many cases the buildings being combined passenger and freight, each two stories high and substantially built; to which should be added water-tanks, coal sheds varying from 3,500 to 6,000 tons capacity, engine houses and machine shops—involving an outlay of many thousands of dollars. In Winnipeg alone an engine house has been built with stalls for 38 engines, and is lighted by electricity. A ten-stall engine house has been built at Rat Portage, and twelve-stall buildings at Brandon, Broadview, Moose Jaw and Swift Current.

In addition a large machine shop fitted up with the newest and most costly machinery has been erected in Winnipeg; also a blacksmith's shop, foundry, tin shop, and engine room, and a large store house.

To carry out all this work has involved the expenditure of over \$20,000,000, a large proportion of which amount has been spent in the northwest. At the end of the track a large army of men has been employed all spring, summer and fall, and just as soon as the frost leaves the ground, work will be resumed. It is the intention of the company to reach the Rockies before the first of August next, and this winter they have a small army of men at work on that portion of the line which lies to the north of Lake Superior, hoping to have passenger and freight trains running over it before the end of five years. Nor has the syndicate confined its operations exclusively to the construction of the railway. There are at present being built in Scotland four swift steel propellers to navigate the waters of Lake Superior and Lake Huron, to connect at Prince Arthur's Landing with the main line. Such in brief is a record of what the syndicate has done the past year in the northwest, and who will say that "The Star of Empire" is not making its way west at a lively gait?

#### Population of European Cities.

The following statistics of the number of inhabitants of some of the principal cities in Europe have been recently issued by Behm and Wagner. There are ninety-two cities in the whole of Europe each containing a population of more than 100,000, but only four which have more than a million, viz: London, 3,832,440;

Paris, 2,225,910; Berlin, 1,222,500; Vienna, 1,-103,110. Of the other capitals, St. Petersburg possesses 876,570; Constantinople, 600,000; Madrid, 367,280; Buda-Pesth, 360,580; Warsaw, 339,340; Amsterdam, 317,010; Rome, 300,470; Lisbon, 246,340; Palermo, 244,990; Copenhagen, 234,850; Munich, 230,020; Bucharest, 221,-800; Dresden, 220,820; Stockholm, 168,770; Brussels, 161,820; Venice, 132,830; Stutgardt, 117,300. In addition to these, Moscow contains 611,970; Naples, 493,110; Hamburg, 410,-120; Lyons, 372,890; Marseilles, 357,530; Milan, 321,840; Breslau, 272,910; Turin, 252,830; Bordeaux, 220,960; Barcelona, 215,960; Odessa, 193,510; Elberfeld, 189,480; Genoa, 179,510; Lille, 177,940; Florence, 169,000; Riga, 168,840; Prague, 162,520; Antwerp, 150,650; Adrianople, 150,000; Leipsic, 149,080; Rotterdam, 148,000; Cologne, 144,770; Magdeburg, 137,130; Frankfort, 136,820; Toulouse, 136,630; Ghent, 127,650; Messina, 126,500; Hanover, 122,840; Nantes, 121,960; Liege, 115,850; The Hague, 113,460; Oporto, 105,840, and Rouen, 104,010.

#### Carolina, Cumberland Gap and Chicago Railroad.

Two mortgages in favor of the Farmers' Loan and Trust Company, of New York, on the Carolina, Cumberland Gap and Chicago Railroad have been filed in the office of the Clerk of Anderson county, S. C. One is a first mortgage, amounting to \$10,000,000, and the other is an income mortgage amounting to \$7,000,-000,000. In order to equip the road the company has resolved to issue 10,000 first mortgage six per cent gold bonds of \$1,000 each, to run thirty years and coupons to be paid semi-annually. In order to secure these bonds the company has given to the Farmers' Loan and Trust Company the mortgage of \$10,000,000 on the right of way, road-bed, road-fixtures, rolling-stock, etc., and also the mortgage of \$7,-000,000 on the profits of the road. The bonds are to be issued at the rate of \$22,000 per mile. and the conditions provide that until default be made in the payment of the interest and principal of these bonds the company shall run and enjoy the profits of the road, and if the company pays the amount of interest and principal then the mortgage and trust shall be void. The mortgages are being recorded in every county through which the projected line runs.

The Carolina, Cumberland Gap and Chicago Railroad Company results from a consolidation of the following corporations: The Atlanta and French Broad Valley Railroad Company of North Carolina; the French Broad and Atlantic Railway Company of South Carolina; the Edgefield, Trenton and Aiken Railroad Company of South Carolina; the Morristown and Carolina Railroad Company, of Tennessee; the Morristown, Cumberland Gap and Ohio Railroad Company, of Tennessee; and the Cumberland Railroad Company, of Tennessee. The total length of the road is about 400 miles. Ex-Gov. Haygood, of South Carolina, is president of the company.

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We invite railroad officers to send us notice of elections, transfers, appointments, resignations, etc.; and all our readers would oblige us by furnishing for our columns any items of personal information, which may come to their knowledge, and are adapted to this department. We aim to record all new railway enterprises in the United States and Canada, and to note the progress of construction on all new roads and extensions; and we request all concerned in railway building to give us early information regarding the above, that our reports may be as complete as possible.

Subscribers are requested to report to our office any irregularity in receiving the JOURNAL.

Contributed articles relating to Railroad matters generally, Mining interests, Banking and Financial items, Agricultural development, and Manufacturing news, by those who are familiar with these subjects, are especially desired.

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#### GROWTH OF THE NARROW-GAUGE RAILROAD SYSTEM.

OUR older readers will remember the "Battle of the Gauges" which was fought from 25 to 30 years ago with great vehemence. This was a controversy as to the superiority of merit of the 6 feet as contrasted with the 4 feet 81 inch gauge. The wide gauge was that adopted by the somewhat renowned English engineer BRUNEL, upon which the Great Western Railway was built, and which for a time made a bold push for the position of the best administered line in the world. The New York and Erie Railroad and its extension, the Atlantic and Great Western, and the Ohio and Mississippi, and some other minor pieces, were built upon that gauge. In the meantime several of the roads, chiefly at the South, had been built of a compromise, or 5 feet 6 inch gauge.

When the railroad to the Pacific was authorized in 1862, the question of gauge came up, and the battle raged with some fury in this country. The selection was finally left to President Lincoln, and among the considerations which determined him to adopt the gauge of 4 feet 8½ inches was undoubtedly the fact that the railroads pushing across Iowa to Council Bluffs were of that gauge, while those extending across Missouri were of the Southern gauge.

Since that time there has been considerable discussion as to whether or no a still narrower gauge would not possess greater advantages. The most of the arguments used in favor of the 4 feet 81 inch gauge against its wide antagonist, have been adopted and used with effect against what is now the "standard" gauge. The reasoning runs thus: "If a 5 feet gauge is so much better than a 6 feet, why is not a 4 feet still better than a 5 feet, and a 3 feet still better than a 4 feet?" There is to be said in favor of the narrow-gauge: the smaller first cost, the narrower road-bed, shorter cross ties, and smaller excavations of rock and tunnelsall of them important elements in the first cost of construction, and when in a sparsely settled country, where railroads are necessarily distinguished for their length rather than their heavy traffic, first cost is often the supreme consideration. The narrow-gauge, however, involves lighter rails, and lighter engines and cars, and consequently lighter trains drawn by engines of less power. There is a saving of first cost in material, but not much saving in the expenses of train hands.

But the narrow-gauge roads have their place; and if the general judgment of engineers and capitalists of to-day may be summed

up, it would be substantially to this effect; that for communication between two great and important centers, or for lines running through a mineral bearing district, where heavy traffic is to be borne, the standard gauge is indispensable; but that in sparsely settled country. over lines connecting widely distinct places, with but little intermediate local traffic, the narrow gauge may be used with advantage. This is particularly true of the mining regions in the Rocky Mountains and beyond. It is still a question as to how much of a competitor the narrow-gauge road will prove to a standard road running parallel through a thickly settled productive country. Nevertheless, this experiment is to be tried, and the past two years have been noticeable for the extent of 3 feet gauge road laid in this country.

The 3 feet system has hardly become knitted together in all its parts so as to constitute one network, and at present is on the eve of joining two or three of its principal ganglia together. The narrow gauges are in three principal groups of roads:

First, there is what is known as the Ballou road, whose main line stretches from Toledo to East St. Louis. It has, however, an important extension from the main line to Dayton, and from Dayton eastward to the coal fields in Jackson county, Ohio, with a fork from that line to Cincinnati. It extends no further northeastward than Toledo, but it is proposed to extend the Cincinnati Northern line in a northeasterly direction until it reaches Columbus. In the eastern part of Ohio is a road called the Connotton Valley, one end of which rests upon Lake Erie at Cleveland, and the other in the coal fields near Straitsville; and plans are now maturing for a connection of this road with the Ballou system at Columbus. The Connotton Valley aspires also to get into Pittsburgh. But it will be noticed that none of these combinations bring the connected narrow-gauge system further east than Pittsburgh on the one side, or Ironton on the other. It is true, projects have been started for building narrow-gauge roads from Washington and Baltimore westward in the direction of Cincinnati, but no progress has been made with the work, and so far as can be learned, no money raised for that purpose.

At the West, however, the narrow gauges have done a good deal of work. From East St. Louis to Cairo a narrow-gauge road has been in operation for some time. It has recently passed under the control of what is known as the "Paramore" syndicate, which has constructed an extension from a point opposite Cairo across Arkansas to Texarkana; only a small gap of 40 miles, on either side of the

White River, remaining to be ironed. The original stem line of the "Paramore system" was built from Texarkana in a southwesterly direction across Texas, nearly parallel with, but at some distance from, the International road of that State, and has been carried to a point called Gatesville, about 50 miles west of Waco, at which former point it connects with the Gulf, Colorado and Santa Fe system of Texas. This gives what is, or soon will be, a continuous narrow-gauge line from St. Louis to Southwestern Texas, penetrating a rich cotton country, and competing with the Iron Mountain (Gould's) system of southwestern roads. Report at one time stated that the "Paramore system" of lines would not halt until it had reached the Rio Grande at Laredo, the terminus of Gould's International road. At present, no work is being done south of Gatesville, but as it connects with no narrow-gauge road at that point, it must be supposed that it will be extended until it intersects the third group of narrow-gauge roads somewhere on the Rio Grande frontier.

The Palmer narrow-gauge roads consist of the Denver and Rio Grande and its numerous branches, having Denver for their main terminus. An extension is on the eve of completion westward to Salt Lake and Ogden, where connection is made with the narrow-guage road known as the Utah Northern, under the control of the Union Pacific, and not now a fraternizing company. It also has a southerly extension to within a few miles of Santa Fe. N. M., and is only barred out of that city by the terms of an agreement with the Atchison, Topeka and Santa Fé. Palmer is known as an adventurous, bold and hitherto successful railroad builder, who has had the good fortune to locate his lines in a country developing rich minerals. He has undertaken the construction of some 2,000 miles of railroad in the Republic of Mexico, and has begun at the city of Mexico, and also at the Rio Grande frontier at Laredo. He is credited with an intention to connect his roads centering at Laredo with the Colorado system terminating at Santa Fé. There is an interval between them of 1,000 miles, and a company has been organized to construct a road between those points, called the Rio Grande and Pecos Railway, of which Gov. Hunt, an associate of Palmer's in Colorado enterprises, is president. Such a road already begun from Laredo north, where, if prolonged, will pass along the Pecos Valley in western Texas, would afford a connection not only with the Colorado roads, but also with the Paramore line, or Texas and St. Louis roads, somewhere in the vicinity of Fort Clark. It is quite conceivable that the gap between Gatesville and La-

redo, say 450 miles, may be closed by the respective companies building to a meeting point; inasmuch as it traverses a fertile country with coal mines at the southern end, even if the Colorado connection should not be built, which passes almost wholly through a sterile country.

It will not be long, therefore, before there will be a continuous line of narrow-gauge rail-road from Pittsburgh, Cleveland and Ironton to St. Louis, and from St. Louis diagonally across Arkansas and Texas to the Mexican frontier at Laredo. From Laredo a line is in operation (162 miles) to the Gulf port of Corpus Christi, and from Laredo south to Monterey, 141 miles further. It is the intention to connect the road in northern Mexico with the system built from the city of Mexico of the same gauge, at present amounting to about 200 miles.

Within two years, therefore, it may be practicable to traverse in the same car, without changing the gauge, the distance between Pittsburgh and Southern Mexico, some 2,400 miles. The narrow-gauge is a lively infant, but whether it will ever grow to be a serious competitor with the standard gauge roads, it is too early to predict.

#### As Other People See Us.

[Cairo (Ill.) Daily Argus].

WITH its issue of the 30th of December, the "AMERICAN RAILROAD JOURNAL," New York, was fifty-two years old, the oldest periodical in the world devoted to railroad interests and news. When its publication was commenced the railroads were few, and hence its field was insignificant compared with what it now is. But the paper has kept pace with the development of its specialty, and is yet probably the best railroad weekly in the United States. It does not contain the amount of rumor and light gossip that some papers of its class do, but it contains all the news of importance, and is reliable. Its stock reports are especially valuable. The long experience of its conductors make them safe counsellors, who are thoroughly posted in everything relating to railroads. They are naturally conservative, as age and experience render all people so, and they are independent, looking to the welfare of all classes of railroad folks impartially, and to the public weal as well.

The present of a subscription to the American Railboan Journal is a suitable recognition of faithful service by a faithful clerk or other employé. Three dollars' worth of information supplied in fifty-two numbers of a handsome periodical, to an intelligent railroad employé cannot but improve his value to the person or company employing him. His interest and enjoyment of his work are heightened by an enlarged acquaintance with the great interest in which he has a part.

SUBSCRIBE for the RAILBOAD JOURNAL

#### RAILROAD MEDICAL SERVICE.

BY S. S. HERRICK, M. D.

SECRETARY OF BOARD OF HEALTH, STATE OF LOUISIANA.

#### THE NETHERLANDS.

I AM indebted to Mr. N. T. Michaelis, a high railroad official at the Hague, for the following particulars:—

Most of the railways of the Netherlands were built at the expense of the State; but a few lines were projected and built by companies. The Government operates no railroad itself, not even those which it has constructed; but the most are operated by a company called the Operating Company of the State Railways, and a smaller portion by the Dutch Railway Company. These two companies likewise operate other lines, either as owners or for third parties, and there are several others of less importance, among which may be named the Rhemish-Netherland Company.

These companies are completely independent in respect to sanitary regulations for their personnel, the only matter in which the Government interferes having reference to train accidents. On this point a royal decree proclaimed that the Minister shall determine what measnres are to be taken to render the first relief to the wounded and remove them from the scene. Moreover, every station and passenger train must be provided with a stretcher and a chest containing the necessary instruments, medicines, etc., for rendering the first relief to the wounded. The construction and contents of the chest are directed, and a little book has been provided for the different companies, containing the necessary instructions for making use of the above means of relief.

In addition to the foregoing State regulations, the following have been adopted by the Dutch Railway Company, previously mentioned:—

The medical officers are chosen by the administration, and are remunerated for their service according to a fixed tariff, in each case treated. Each physician has a definite territory, which, in a large town does not extend beyond its limits, and attends all employés to whom he is called, or who are sent to him by the proper railroad officials.

Employés are entitled to medical attendance in ordinary sickness, as well as in case of injury; but exception is made of cases growing out of drunkenness, brawls and venereal infection. The families of employés are not included in these privileges. To meet the expense of this service, all employés are taxed one per cent of their regular pay; but it is not stated whether this amount is found sufficient.

The company has no hospital of its own, but sick and wounded persons are sent to civil hospitals at the expense of the company, whenever the medical officer deems it to the advantage of the patient. In a country so densely populated as Holland, with large towns at short intervals, it would be found less expensive, and probably quite as satisfactory to the patients, to make arrangements with the authorities of hospitals conveniently located.

Benevolent associations among the employés

for mutual relief to sufferers in sickness or injury, or to their families in such case or in event of death, have not existed. Only lately such an organization has been inaugurated among the guards (conductors) of trains.

To my inquiry relative to physical examination of employés and its nature, it is answered that some classes are subjected to tests of vision. These are officers of the stations, conductors, locomotive-engineers, laborers and attendants along the line, and generally all those who have to distinguish signals. It is not stated how the examination is conducted, but it is to be presumed that it is made by the medical officers. I infer also that the examination has reference only to such visual defects as color-blindness and near-sightedness.

The medical officers of the company are not required to look after the personal hygiene of the men, nor the sanitary condition of railway carriages, buildings, grounds, etc. There are no regulations relative to the transportation of live-stock, to prevent overcrowding, deprivation of food and water, and too long confinement in transitu, but the owners are privileged to travel with the animals or send attendants with them, and are required to assume all the above risks.

The Rhemish Railway Company reports that "medical and sanitary regulations are established by law." [From what has been said before, these regulations must be limited to measures of relief in case of accident.]

This company has no medical officers, no hospitals, no medical service save to those injured in accidents. The first relief in such cases is remunerated by the company, and it is to be presumed that they run for the nearest doctor to use the contents of the medicine-chest which is carried on every passenger train.

The workmen in the shops have an association among themselves for compensation to their families in case of death. This must be a kind of life-assurance, of limited application, the like of which is quite common in this country.

Every person proposing to enter the company's service has to make a declaration that he is of sound constitution, free from any disease, or defect of the senses; but it is not stated whether this is fortified by a medical certificate after a physical examination. It might be "all the same in Dutch," but hardly be equivalent in lands above tide-level.

The number of animals to be transported in a railway car depends upon the superficial floor-space, but there are no regulations relative to length of confinement, or food and water. Nothing is said about measures to prevent pestilential diseases from being disseminated through the medium of stock-cars.

If these two companies are fair representatives of the medical service on the Netherland railways, it is far behind that of France, and decidedly inferior to that of Austro-Hungary. Doubtless the limited mileage of those railways has much to do with the matter, the total area of the country being but little more than that of the State of Delaware. Everything consequently is in a smaller scale than we find on lines traversing long stretches of territory, employing large numbers of men under one man-

agement. The cost of administration in every department must consequently be greater on the short roads of Holland, and a well-organized medical department would be too large an undertaking for the capital and personnel of those liliputian corporations.

It will be seen hereafter that this principle is borne out in our own country, by comparison between the short lines of New England with the extensive systems of the central, western and Pacific States, which are far in advance of the eastern railways in respect of medical organizations. And this is one of the many advantages derived from the consolidation of numerous small and weak companies into a few large and powerful corporations, able to inaugurate enterprises and improvements totally beyond the ability of the separate constituents.

TO BE CONTINUED.

#### A Good Suggestion.

That of our Legislature in causing all passenger and baggage cars to be equipped with tools for the protection of life in case of accident. Our attention being called to the different methods adopted by the various railroads, it seems to us that the device for carrying tools inside and outside recently patented by Messrs. Harden and Doyle, of the Boston, Lowell and Concord Railroad, Boston, and approved by the Railroad Commissioners, is the most practical and convenient for instant use. We understand that over four hundred passenger and baggage cars running in New England are already equipped with this invention, very much to the satisfaction of the traveling public.

#### Underground Railway in Naples.

THE underground railway which is to unite the different parts of the city of Naples is receiving much attention from engineers, in its technical and topographical relations. According to the plan now projected, a portion of the railway will be in the open air and a part in tunnels under the hills that lie west and north of the city, and under some of the principal streets. Instead of steam, compressed air will be employed, and the tunnels and cars lighted with gas, according to the most improved system. One of the novelties of this railway is, that from an underground station in the body of a mountain called Vomera it will be connected by means of a subterranean lift, with an open air railway immediately above, running through the villages on the top of that mountain. From the underground station, this lift will ascend more than 500 feet to reach the upper station on the top of the Vomero.

The Secretary of the Treasury has authorized the coinage of a five-cent nickel piece of a new design, "which is considered as being more in accordance with the law as regards weight and inscriptions than the present five-cent nickel piece." The new coin is a little heavier than the present one and a little larger and thinner. On its face is a head of "Liberty," surrounded by thirteen stars; on the reverse a wreath surrounding a Roman numeral representing the denomination of the coin.

# CANADIAN DEPARTMENT.

MR. JAMES J. WRITE, Ottawa, Canada, writer of "Our Canadian Letter," acts as agent for the AMERICAN RAIL-BOAD JOURNAL COMPANY, in Canada. He is authorized to receive, in behalf of the company, subscriptions and advertisements for this journal; also news of the character which he can utilize in the preparation of his Letter, or send to us for use elsewhere within these columns. He respectfully invites information concerning Railroad matters generally, Mining, Banking, Finance and Manufactures.

#### OUR CANADIAN LETTER.

[From our Special Correspondent.]

THE ONTABIO LEGISLATURE AND DOMINION PARLIA-MENT—REVENUE OF THE DOMINION—CANA-DIAN PACIFIC AND OTHER RAILWAY NOTES.

LIFE AND LIMB SAVING APPLIANCES.

Owing to the great loss of life and maining on railways caused by the ordinary coupling system, the Dominion Government should be urged to legislate in the matter, by making it compulsory for railway companies to adopt some life and limb saving brake. There are many of these useful inventions. A commission should be appointed by Government to whom these appliances might be submitted for examination, and after being thoroughly tested, recommended.

The Ontario Legislature will probably close its work about the beginning of February, and the Ontario elections will be held in the same month.

The Dominion Parliament, which assembles on the 8th of February, will not close before the latter part of April or the beginning of May. The Canal Free Toll question, readjusting the tariff to meet the requirements of the country and other important matters, which will bring on debate, will prolong the session.

Among the applications to Parliament is one for an act to incorporate a company to build a line of railway from the terminus of the Ottawa and Gatineau Valley Railway, at the confluence of the Desert and Gatineau rivers, to some convenient point on the Hudson Bay, and for an act to incorporate the Canadian Electric Light Company.

Eddy Mills, at Hull, near Ottawa, that were some time ago destroyed, are being built very rapidly. There are some fifteen electric lights used at night, thus enabling large gangs to work. Mr. Eddy is an American, and like several other of his countrymen who are largely engaged in mills and lumbering, is the life and soul of these parts.

The revenue of the Dominion of Canada for the month of December, 1882, was \$2,480,764.61, and expenditure, \$1,509,812.28. The first six months of the fiscal year 1881-82 closed December 31. The figures below represent the revenue and expenditure for that period as far as they have been received by the Finance Department up to the date above named: Revenue, \$18,065,597.83; expenditure, \$12,519,335.22—surplus for the six months, \$5,546,262.61.

Large quantities of iron ore are being shipped to the United States from Kingston, and as the duty will be reduced shortly, it will be a great benefit to Canada. Thousands of hop poles, are being shipped from Prescott to the United States.

The cold last week was very severe, the thermometer ranging from 16 deg. to 32 deg. below zero in Ottawa and the neighboring counties.

Lumbering operations in the Ottawa Valley are being actively carried on, and as there is an abundance of snow and the weather favorable, the cut this year is expected to be very large.

#### BAILWAY NOTES.

The Kingston and Pembroke will apply to Parliament to have its charter amended to enable them to build branch lines to Westport, Smith's Falls and Egansville, and thence to the Georgian Bay; they will also ask for an increase of the capital stock of the company.

#### THE TORONTO AND OTTAWA RAILWAY.

Last week work between Perth and Bridge water was stopped, and the workmen paid off and told work would be resumed next April. There are rumors that the syndicate want to buy the charter from the Midland Railway, so as to shut out all competition by the Toronto and Ottawa route. Further developments are looked for with much interest. In the meantime the Ontario and Quebec line is pushing on vigorously.

A petition was presented on Friday last to the Ontario Legislature praying for the incorporation of the Niagara Falls Park Company. Many leading men of all parties oppose the private or company scheme, and say that any park scheme at Niagara Falls will be an injustice to many of its property owners, and that if any park is established it should be by the Ontario and Dominion Governments.

The Grand Trunk Railway traffic is so great that the Midland Railway, from Toronto to Belleville, has to be utilized to relieve the freight blockade. The double-track intended to be put down in the spring on the Grand Trunk, will be also tested to its fullest capacity, as the traffic is increasing very rapidly.

#### THE ICE PALACE.

The Ice Palace has been located on Dominion Square, and the work of construction begun. Forty thousand square feet of ice will be used in its construction, and over one hundred men are now at work on it. Several of the leading families of New York have engaged rooms at the Windsor.

The liabilities of Perry & Cassels, boot and shoe manufacturers, of Montreal, who lately failed, owing to Perry giving notes away without his partner's knowledge, are \$124,000, and the assets \$62,000. Some \$8,000 of goods are unaccounted for. Mr. Cassels will assign and obtain a discharge from his creditors.

The Montreal Rolling Mills were burned on Thursday last—loss 90,000 mostly covered by insurance.

#### CANADIAN PACIFIC RAILROAD NOTES.

During 1883 the main line on the western division will be advanced to the Rocky Mountains, a distance of about 950 miles from Winnipeg. The branch from Emerson to the Southwestern branch of the Canadian Pacific Railway, a distance of twenty-two miles, will be completed.

The Selkirk branch, twenty-three miles long,

will be completed. The road will be completed to a point some 130 miles west of Callendar, near Lake Winnipeg. The Algoma branch from Whanapitæ River to Algoma, some 110 miles will be completed. It is intended to complete the line from Thunder Bay eastward to a point about forty miles east of the Nipigon River, or 105 miles east from Prince Arthur's Landing.

The Canadian Pacific Company declares that work will be begun at all available points along the north shore of Lake Superior, and carried on vigorously. In the Pic and White River districts the country is very rocky, and offers great obstruction, but the company expect to construct short sections east and west of the Pic River.

The Canadian Pacific Railway rolling-stock includes some 100 locomotives, sixty box-cars, sixty baggage-cars, forty passenger cars, and over 3,000 flat cars, and to this number will be added a large number of locomotives and other cars in the spring.

It is reported in Montreal that Amsterdam caritalists will take \$50,000,000 of the Canadian Pacific Railway stock.

#### BRITISH COLUMBIA.

During eleven years past, Victoria has paid \$50,000,000 in customs duties. On dutiable goods imported last year, \$300,000; free goods, \$450,000. Exports show a still more remarkable increase. Exports for the year were \$4,500,000; for the last quarter the exports reached the unprecedented sum of \$1,339,000. These figures do not include lumber shipments for the last half year, or fish shipped direct from Frazar River, which will swell the total exports for the half year to \$1,650,000. These figures show a great expansion of the trade of the Province, and of Victoria in particular.

A company has been organized at Victoria with a capital of \$500,000, to manufacture agricultural implements, stoves, nails, and every kind of iron work.

#### MARITIME NOTES.

Some 200 tons of rich silver ore is about to be shipped to Boston by the Elm Tree Mining Company, operating in Gloucester county, N R

#### THE DALHOUSIE BRANCH RAILWAY.

It is understood that the Dominion Government will construct this important branch of the Intercolonial. There is open water at Dalhousie during nine or ten months of the year.

THE OTTAWA, WADDINGTON AND NEW YORK RAIL-

#### WAY.

An influential delegation waited on the Ontario Government last week, and asked assistance for the road. The deputation pointed out the great benefit its construction would confer on the counties through which it will pass as well as Ottawa, and the Ottawa Valley generally. The fact that Ottawa was destined to become a great railway center, and that the building of the road would materially assist in opening up a great trade in connection with the various reilways centering at Ottawa, that would be of the greatest commercial benefit to Ontario. The Hon. Mr. Mowat received the deputation cordially, and promised that the Government would look into the matter carefully, and inform themselves of the standing

of the promoters and the ability of the people to construct the road, providing they obtained the bonus. "W."

OTTAWA, Jan. 11, 1883.

#### Arkansas State-Aid Bonds.

In refering to the recent decision of the United States Circuit Court relating to the Arkansas State-Aid bonds, the Little Rock Gazette says:

"The railroad aid bonds were issued by the State under the act of 1868. They were accepted and used by five railroad companies, to which the following issues of bonds were made: Little Rock and Fort Smith, \$1,000,000; Little Rock, Pine Bluff and New Orleans, \$1,200,000; Mississippi, Ouachita and Red River, \$600,000; Memphis and Little Rock, \$1,200,000; Arkansas Central, \$1,350,000—total, \$5,350,000.

"The Memphis and Little Rock Railroad Company owns and holds \$938,000 of the \$1,-200,000 bonds originally issued to that corporation, and the bonds owned and held by the Little Rock and Fort Smith Railway Company amount to \$644,000. These bonds were purchased years ago upon advice of counsel at very low figures, with a view of hedging against a possible decision by the courts holding the railroads and not the State liable for the bonds issued to those corporations. The remainder are outstanding. Of the railway corporations above named, all but one-the Arkansas Central, which is understood to be in a bad condltion-are thoroughly responsible, and fully able to liquidate the claims due on these bonds. Two of them, as already explained, have taken the precaution to so provide as to make settlement easy should the recent decision be affirmed by the Supreme Court of the United States. And of this there seems little doubt. The law and the facts appear to be conclusive on all points. The questions involved in these suits are of vital importance to the people of Arkansas. Of the railroad bonds authorized under the act of 1868, the issue to the railroads aggregated \$5,350,000. They form a part of the grand total of \$13,000,000 for years past in dispute, and to prevent the payment of which the proposed 'Amendment No. 1' to the Constitution of the State of Arkansas was framed and submitted to the qualified electors in 1880,"

A waggish friend having read that there is the probability of our going to bed by the aid of electricity, suggests that a greater genius than the electrician as yet developed, would be the inventor of an electric machine for getting one up in the morning. "There's the rub," says he; "any fool can go to bed."

"Clara" writes: "I think it is real mean of the papers to intimate that lovers increase the expenses of living on account of the extra consumption of coal and gas every night. It is not true. It is easy enough to keep warm, and as for light, who wants it?"

PENMAN'S hand paralysis can be greatly remedied by using an all wood penholder and Exterbrook's turned up point Pens. Ask your stationer for them.

# THE STOCK EXCHANGES AND MONEY MARKET.

New	York	Stock	Exchange.
THOM	TATE	BUUCK	MACHAILE O.

New York Stock Exchange.	1
Closing Prices for the week ending Jan. 10. Th. 4. F. 5. Sat. 6. M. 8. Tu. 9. W. 10.	
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Phila. & Reading. 54% 55% 55 56 55% 55%		
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2d mortgage		
Pullman Palace Car 125 124 123%		
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Boston Stock Exchange.		
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Concord (\$50)		

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Northern N. H	100			108%	109%	
Norwich&Worcester						
Ogden & Lake Cham						
Old Colony						
Ph., Wil. & Balt. (\$50).						
Portl'd,Saco & Ports						
Pueblo & Ark Val 78						
Pullman Palace Car						
Union Pacific	103%	103%	103%	103%	104	103%
68	113%				113%	
Land Grant 78			****			
SHRING Fund Ss.	115%	****		115%	110	*****
Vermont & Mass						
Worcester & Nashua						
Cambridge (Horse)			84			
Metropolitan(Horse)					7236	7134
Middlesex (Horse)	102				1-10	1-/8
Cal.&Hecla Min'gCo						
Quincy	6234	64	6234	62 14	6214	621/
	3/1	-4	-3/1	-378	378	37

2d mortgage	*****						Quincy 63% 64 63% 63% 63% 63%
Consolidated 78						116	
Consol. S. Fund.					*****		Philadelphia Stock Exchange.
Pacific Mail S. S. Co	4236	43 %	43%	41%	42	41%	
Pacific R. R. of Mo.							Closing Prices for the Week Ending Jan. 9.
ist mortgage				107 1/8			W. 3. Th. 4. F. 5. Sat. 6. M. 8. Tu 9
2d mortgage							
Panama							Allegh'y Val. 7 3-108
Phila. & Reading							Buff., Pitts & West. 17% 18% 18% 18% 18%
Pitts, Ft. W.&Chi.gtd				136%			Camd'n & Am. 68, '82
at mortgage	****		****				6s, 1889
2d mortgage						*****	Mort. 68, 1889 113
Pullman Palace Car							Camden & Atlantic
Quicksil'r Min'g Co							Preferredst mortgage
Preferred							2d mortgage
St. Louis & San Fran							
Preferred	52 3/2	53					Catawissa
ist Preferred							2d prei 53 53
8t. L., Alt'n & T. H.	483	51	50%	50 1/2	51		78, Hew
Preferred	90	93	90%	93	94%		Del. & Bound Brook
ad mort prof		****	****	*****	*****	*****	78
2d mort. pref Income bonds	*****	****	103	*****	105	*****	Eimira&Williamsp't Preferred
St. L., Iron Mt.& S.					-		Drunt & D Ton We
1st mortgage				*****			Hunt. & B. Top Mt
2d mortgage							2d mortgage
Toledo and Wabash.	****					*****	2d mortgage Lehigh Navigation. 38% 38% 39% 39 39% 68, 1884. 101% 101% 101% 110
rst mortgage				108	1083		68, 1884 101% 101%
2d mortgage 78, Consolidated		100	100	** *			Railroad Loan 109% 110
St. Louis Division			*****		*****	*****	Conv. Gold Loan 108
Union Pacific	70416	10256	7021/	******	70086	7003/	Conv. Gold Loan. 108 Consol. Mort, 78
ist mortgage	113%	113%	113%	EXSM	11336	11336	Lehigh Valley 63% 63% 63% 63% 63% 63%
Land Grant 78							Lehigh Valley 63½ 63½ 63½ 63½ 63½ 63½ 63½ 13% 63½ 120½
Binking Fund os.		11075	110%	I IIO			18t mort. os, reg
United States Ex	*****		64			64	2d mort. 78
Wabash, St. L.& Pac Preferred New mort. 78	35%	34%	34%	35%	35%	35	Consol.mtg.6s,reg 120
Preferred	55%	54%	54%	54%	54%	54%	Little Schuylkill 56%x 56% 56% 56% 57
							Minehill&Sch.Hav'n 61 61 61
Wells-Fargo Ex							
Western Pacific b'de							North Pennsylvania 64 64 64 64 64 65
Western Union Tel.	. 8234	815	8 s	817	81%	82	2d mortgage 78
78., S.F conv., 1900			. 115	£ 116	****		Genl. mtg.7s,coup
FEDERAL STOOM		,					Genl. mtg. 78, reg
U. S. 48, 1907, reg	. 119%			. 1193	1195	119%	Northern Central
U. S. 48, 1907, coup U. S. 4368, 1891, reg U. S. 4368, 1891, coup	. 1197	1135		. 1125	6 1192	119%	58 100 99% 99% 99%
U.S. 4 168, 1891, cou	p			. 1135		113%	Northern Pacific 47% 43% 48% 49% 49%
U. S. 5B, сопт и везу							Pennsylvania P. P. 607/ 601/ 601/ 601/ 601/
U. S. 38, reg		103%		. 1039		. 103%	1st mortgage
Dt. of Col. 3-658, rep Dt. of Col. 3-658, cou	B						Gen'l mort
De. 01 001.3-035,004	p						Gen'l mort reg
		-					Consol mort seg
Bosto	n Ste	oek :	Exel	hang	e.		Consol. mort. reg 117
Closing Price	es for t	he We	ek En	ding i	Tan. 10		Pa. State 58, new
- 11/2017 31/3	Th.	4. F. 5	. Sat.	6. M. 8	Tu.o	W. 10	do 31/8, 1912
Atch. Top. &San. Fe							
Atch., Top. & San. Fe		. 121					Phila & Reading 26% 27% 28 27% 27% 27% 1st mortgage 6s
Land Grant 78			. 113	%			78 Of 1803
Boston & Albany	. 174	173	% 174			. 175	78, new convert 72 72% 73% 73% 74% Consol. mort. 78 122% 122% 123
Boston and Lowell							Consol mort reg
Boston & Maine							Consol mort reg. Gen'l mort 6s 92% 92% 92% 92% 92% 92% 92%
Boston & Providence					-		
							Philadelphia & Erie
Bos'n, Hart.& Erie							18t mortgage 58 103% 103% 103% 103%
Burl.& Mo.B.L.G.							· 2d mortgage 78 1121/4 1121/4 113
Burl.& Mo.R.in No	D						Pittsb., Cin.&St.L.78 119 120
6s, exempt		. Ra	8-	¥		v	Pitts., Tit. & Buff. 78, 95 95
Ohi Buel & Onun	W	. 03	02	h	5/ 02	2/	J GOLLYMAN AND A C.
Chi., Burl. & Quine							Preferred 12 12
Cin.,Sand&Clev(\$5							
Concord (\$50)							
Connecticut Rive							United Co. of N. J. 1881 1881 1881 188
Eastern							Hestonville, (Horse) 151/4
New 6s, Bond	1093	8 109	% 10g	%		1093	Chestnut&Walnut)

# Baltimore Stock Exchange. Closing Prices for the Week Ending Jan. 9.

Citating I 7 ice						
		3. Th.				
Baltimore & Ohio						*****
68, 1885						
Central Ohio (\$50)	51%	5136	52			
1st mortgage		****	****			****
Marietta & Cincin'ti.						
1st mortgage, 78	130	129%		129%		
1st mortgage, 78 2d mortgage, 73	99%	99%			99%	
3d mortgage, 8s	. 53%	54	53%		537	
Northern Cen. (\$50).	54%					
2d mort. 68, 1885						
3d mort. 6s, 1900			*****			
6s, 1900, gold						114%
68, 1904, gold	113				112%	K
Pitts. & Connelsv. 78.						
Virginia 6s Consol	61 ·	6x34	6134	6x	60%	60
Consol. conpons	58%	<b>5</b> 5	57	57	5634	56 36
10-40 bonds	42%	42%	43		43	40
Def'd Certificates.						
New 38						
Western Maryland					15	
1st M., end. by Balt						
2d M., do						
3d M., do						
1st M., unendorsed						
2d M., end. Wash Co				****		
2d M., preferred						
City Passenger R. R.					*****	

#### London Stock Exchange.

		Prices-			
De	e. 15.	Dec.	22.		
Baltimore and Ohio 58, 1927105	109	107	109		
Central of N. J., \$100 shares 70	75	70	75		
Do. consol. mort	113	110	113		
Do. Income Bonds 88	92	38	92		
Central Pacific of Cal., \$100 shs 90 1/2	911/2	89	90		
Do. 1st mort. 6s, 1895-'98	117	115	117		
Det., G'd Haven & Mil.Equip bds.117	113	118	130		
Do.Con.M.5p.c., till'83 after 6p.c.116	118	117	119		
Illinois Central \$100 shares149	150	149	150		
Do. S. F. 58, 1903105	107	104	106		
Lehigh Valley Cons. mort. 1923115	120	115	120		
Louisville and Nashville mort. 68 gr	93	91	93		
Do. capital stock \$100 shares 55	56	55	56		
N. Y. Cen. & Hud. R. mort. bonds.130	135	133	135%		
Do. \$100 shares	135%	134%	13434		
Do. mort. bonds (stg.)122	124	122	124		
N. Y. Lake Erie & West. \$100 shs. 40	4016	40	40%		
Do. 6 p. c, pref. \$100 shares 87	89	89	91		
Do. 1st Con. Mort. bonds (Erie). 128	132	128	132		
Do. do. Funded Coupon bonds. 125	130	125	130		
Do. 2d Consol. Mort. bonds 99	IOI	99	101		
Do. do. Funded Coupon bonds. 97	99	97	99		
N. Y., Pa. & Ohio 1st mort. bonds. 50	51	50 1/2	51 34		
Do. Prior Lien bonds (sterling). 100	105	100	105		
Pennsylvania \$50 shares 621/4	623	61%	6234		
General Mortgage124	126	124	136		
Phil. & Erie Gen. mort. 68, 1920117	119	117	110		
Philadelphia & Reading \$50 shs 27 1/4	27%	28	283		
General Consol Mortgage114	116	115	117		
Do. Improvement Mortgage 103	105	104	106		
Do. Gen. Mtg.'74, ex-def'd coup. 96	98	97	99		
St. L. Bridge 1st mort. gold bond.121	123	121	123		
Do. 1st, pref. stock 92	96	92	96		
S. P'fic of Cal., 1st mort 68, 1905-6. 106 1/4	107%	106%	1073		
Union Pacific 1st mtg. 6s, 1896-9115	117	115	117		
Wabash, St. L. & P. \$100 shares 341/4	35%	35	36		
Do. \$100 pref shares 57	58	55%	5634		
Do. gen. mort. bonds 8r	83	81	83		

#### AMERICAN RAILROAD JOURNAL

#### Financial and Commercial Review.

THURSDAY, JANUARY 11, 1883.

RATES for money on call on stock collaterals during the forenoon were 5 per cent, and on Governments 2@3 per cent. In the afternoon the rates were 4@4½ per cent.

The posted rates for foreign exchange were 4.81½@4.82 and 4.85½@4.86. The actual rates were as follows, viz: Sixty-day bills, 4.81 and 4.81½; demand, 4.85 and 4.85½; cables, 4.86 and 4.86½; Commercial bills, 4.79½ and 4.80. Continental exchange was as follows: Francs, 523½ and 520; reichsmarks, 94½ and 95½@¾. Guilders, 39½@¾ and 40.

The Cleveland and Pittsburgh Railroad was leased to the Pennsylvania Railroad Company in December, 1871, for 999 years, and the lease transferred to the Pennsylvania Company in May of the following year, at a rental of 7 per cent of the capital stock, interest on bonds,

sinking fund, and \$10,000 a year for organization. By the terms of the lease the lessees are also to pay dividends on a 43.85 per cent increase in stock at the time. The report of the President, which was presented at the annual meeting of the company, held in Pittsburgh on the 8th inst., showed that the year's receipts were \$1,239,573.72, and the expenditure \$1,-746,98 less than the receipts. There also came to the company \$3,320.61 from the Cleveland and Massillon branch. The sinking fund was increased by \$66,650. Twenty-three construction bonds-\$23,000-were added to the account of the sinking fund during the year, and twenty of the same \$1,000 bonds cancelled. The outstanding balance of the public debt now is \$2,-491,000 and the betterments during the year \$225,058, and \$225,000 worth of construction and equipment bonds appropriated to pay the cost. A number of provisions were made for past and future steps in the better equipment of the road-purchase of depots, both freight and passenger; building of bridges and other improvements. The year's balance sheet showed the debt of the company to be \$17,539,357 .-07, and the receipts \$17,302,124.64; the balance, \$237,232.43, being the total liabilities of the company including everything.

The total bonded debt of the State of Maine, less the sinking fund, is \$4,178,715, a decrease of \$186,818. Savings banks show an increase of deposits over 1881 of over \$3,000,000. Under the head of taxation the Governor recommends a tax levy on the telephone companies of the State.

The Camden and Amboy Railroad 6s of 1883 (a loan of \$1,700,000) fall due February 1, and will be paid off. The holders have the option, however, of refunding them into the new 4 per cent forty year gold bonds of the United Companies of New Jersey, which are issued without deduction for taxes, and at the price of 93½. The exchange may be made, or the holders of the 6s will be paid off, until February 1, 1883, at the offices of Drexel, & Co. or W. H. Newbold's Son & Co., Philadelphia, Penn.

In the United States Circuit Court, this city. on the 2d inst., Judge Wheeler rendered a decision in favor of the orators in the action of T. Nichols and others against the New York, Lake Erie and Western Railroad Company and others. He decides that certain preferred stockholders have a right to a dividend out of the profits of the road for 1880, which dividend was not declared by the directors for that year. The court ordered a decree to be entered that "the holders of preferred stock are entitled to dividends at the rate of 6 per cent per annum in every year that the net profits of the year as declared by the board of directors of said company are sufficient to pay the same or as far as the said net profits of the year ending December 30, 1880, may be ascertained and the dividends due to the holders of said preferred stock in respect thereof are directed to be paid."

The report of the United States Treasurer to the Secretary of the Treasury on the sinking fund and funded debt of the District of Columbia shows that there was expended during the year in the purchase of the various bonds of the District \$259,321.20 of which \$39,600 was used in the purchase of 3.65s at par, the other bonds being bought at an average premium of about 14 per cent; \$44,610 was applied to the interest and sinking fund upon the water-stock bonds, which annual amount will extinguish the debt in October, 1901. There has been redeemed \$681,300 in board of audit certificates, leaving \$31,693.24 to be provided for. The statement of the funded indebtedness of the District up to January 1, 1881, shows that the total debt is \$21,664,750. Amount of funded debt retired since July 1, 1878, \$1,189,250. Reduction in annual interest charge since July 1, 1878, \$69,587.67. The issue of District 3.65s is limited by law to \$15,000,000; there have been issued to date \$14,490,600.

The total tonnage of anthracite coal from all the regions for the week ending Dec. 30, as reported by the several carrying companies, amounted to 502,839 tons, against 585,463 tons in the corresponding week last year, a decrease of 82,633 tons. The total amount of anthracite mined for the year is 29,193,998 tons. against 28,500,183 tons for the same period last year, an increase of 693,815 tons. The quantity of bituminous coal sent to market for the week amounted to 93,485 tons, against 75,118 tons in corresponding week last year, an increase of 18,067 tons. The total amount of bituminous mined for the year is 4,520,802 tons, against 5,149,123 tons for the corresponding period last year, a decrease of 628,321 tons. The total tonnage of all kinds of coal for the week is 596,015 tons, against 660,581 tons in corresponding week last year, a decrease of 64,566 tons, and the total tonnage for the coal year is 33,714,800 tons, against 33,649,306 tons to same date last year, an increase of 65,494 tons. The shipments of bituminous coal from the mines of the Cumberland coal region for the week ending Dec. 30 were 41,368 tons, and for the year to that date 1,512,519 tons, a decrease of 726,565 tons as compared with the corresponding period of last year.

The Governor of Illinois, in his message to the Legislature, estimates the amount necessary to be raised by taxation for State uses for the next two years is \$3,681,000, and for public schools \$2,000,000. The Illinois Central Railroad fund is estimated at \$8,000,000, and the surplus from former levies is to be deducted from this amount. He recommends legislation in the interest of permanent roads, and a constitutional amendment giving the Executive power to veto single items in Appropriation bills.

According to the statement of the Controller. the funded debt of the city of New York on the 1st of January, 1883, less the amount in the Sinking Fund for its redemption, was \$96,141,-948, a reduction during 1882 of \$2,159,000. Stocks and bonds were issued during the year, exclusive of revenue bonds, to the amount of \$4,468,000, which sum was added to the debt, making the total expenditures of the city government during the year (including the appropriations by the Board of Apportionment) \$33,-880,000. Of the bonds issued over \$3,000,000 were for expenditures by the Public Works Department, making the total sum used by that department for the year 1882 reach nearly \$6,000,000.

The following quotations of sales of railway and other

securities, for the week, are in addition to those given elsewhere in our columns.

New Fork .- Atlantic and Pacific 1st, 94; Atchison, Colorado and Pacific 1st, 93; Boston and New York Air Line pref., 79; Chicago, St. Louis and New O leans, 80; do. 1st, 116; do. 58, 103 %; Chicago, St. Paul Minn. and Omaha. 52%; do. pref., 111%; do. consol., 108; Central Iowa, 26; do. 18t, 112; Columbus, Chicago and Indiana Central inc., 48; Chicago, Milwaukee and St. Paul Southern Minn, div. 1st, 106%; do. Chicago and Pacific West div. 1st, 91%; do. Mineral Point div. 1st, 91%; Chicago and Northwestern S. F. 58, 100%; Chesapeake and Ohio 6s, 1911, 98; do. 1st, Series A, 107; do. our. 6s, 53 1/4; Chicago, Burlington and Quincy 5s, S. F., 104; do. Denver div. 48, 84%; do. Iowa div. 58, 105 1/6; Cleveland and Toledo S. F., 106 1/6; Central Branch Union Pacific 1st, 101; Columbia and Greenville 1st, 97; Denver and Rio Grande, 44%; do. 18t, 107%; do. consol., 80 1/4; Des Moines and Minn. 1st, 121; East Tennessee, Virginia and Georgia, 10; do. pref., 1716; do. 58, 73; do. inc., 40; Elizabethtown, Lexington and Big Sandy 6s, 94; Evansville and Terre Haute 1st consol., 961/4; Fort Worth and Denver, 30%; do. 1st, 67; Gulf, Colorado and Santa Fe, 18t, 108; Houston and Texas Central 1st. Western div., 105; Indiana, Bloomington and Western, 33 4; do. consol. inc., 43; International and Gt. Northern 1st, 1051; do. 6s, coupon 851; Indianapolis, Decatur and Springfield 1st, 1023; Kansas Pacific 1st consol., 100; do. 6s, Denver div. ass., 10714; Keokuk and Des Moines 1st, 1c4; Lafayette, Bloomington and Muncie 1st, 98; Louisville, New Albany and Chicago, 65; do. 1st, 102; Long Islan , 61; do. consol. 55, 97%; Lake Erie and Western, 31; do. 18t, 101; Louisville and Nashville genl. mort. 6s, 93; Metropolitan Elevated 2d, 88; Michigan Central 58, 100; Manhattan Beach, 19; Minneapolis and St. Louis. 28; do. pref., 64; do. 18t, 11814; do. Southwestern ext. 1st, 110%; do. Pacific ext. 1st, 101%; do. Iowa ext. 1st, 111%; Mobile and Ohio, 18%; do. 1st deben., 83; do.2d deben., 481; do. 3d deben., 38; do. 4th deben., 32; Missouri Kansas and Texas, 331; do. concol. 78, 108 %; Missouri Pacific, 103 %; do. 18t, 100%; do. ad. 100 %; Memphis and Charleston, 52 %; Milwaukee, Lake Shore and Western pref., 4814; do. 1st. 98%; New York, Chicago and St. Louis, 14%; do. pref., 32%; do. 1st, 971; Nashville, Chattanooga and St. Louis, 6014; New York, Ontario and Western, 2614; Norfolk and Western, 18; do. pref., 48%; do. genl. mort., 100%; New Orleans Pacific 1st, 87%; Northern Pacific 1st, 1021; Oregon Short Line 68, 100; Oregon and California 1st, 88 1/4; Oregon Railway and Nav., 139%; do. 1st, 106%; Oregon Transcontinental, 85%; Ohio Central, 13 4; do. 18t, 923; do. inc., 32; Ohio Southern, 13; do. inc., 26%; do. 18t, 81; Peoria, Decatur and Evansville, 27; do. 1st, 100 %; Rochester and Pittsburgh, 211/6; do. inc., 45; do. 18t, 1031/6; Rome, Watertown and Ogdensburgh, 323; do. inc., 44; do. ext. 58, 73; Richmond and Danville, 52; do. deben., 61; do. 1st, 96%; Richmond, Danville and West Point, 24; Pennsylvania Co. 41/28, 95; Rensselaer and Saratoga, 141; Richmond and Alleghany, 141; do. 18t, 77; St. Louis, Kansas City and Northern, Omaha div. 18t, 1983; St. Paul and Duluth, 401/4; do. pref., 961/4; St. Paul and Sloux City 1st, 113; St. Paul, Minn. and Man., 1423; do. 1st, 108; do. 2d, 1081; do. Dakota ext. 1st, 1061; South Carolina, 25; do. inc., 60; do. 18t, 101; St. Louis, Alton and Terre Haute dividend bonds 621/4; Southern Pacific of Cal. 1st, 103; South Pacific of Mo. 1st, 103; St. Louis and San Francisco 2d, class B, 921; do. C, 921; St Louis and Iron Mt., 58, 75%; do. 1st pref. inc., 110; do. Cairo and Fulton 1st, 107 %; do. Arkansas Branch 1st, 109; Texas and Pacific, 40; do. consol. 6s, 93; do. inc. L. G., 58; do. Río Grande div. 1st, 841/4; Union Pacific col. trust., 10314; Wabash, St. Louis and Pacific gen'l. mort. 6s, 8o; do. Chicago div. 1st; 811; do. Toledo, Peoria and Western 1st, 107; Winona and St. Peter 2d 121; Arkansas 78, L. R. P. B. & N. O., 37; do. Cantral, 21 do. M., O. & R. R., 36; do. L. R. & Ft. S., 38; do. Chatham, 18; do. M. & L. R., 491; Alabama, Class A, 85; Louisiana consol., 72%; Missouri 68, 1889-'90, 114%; do. 6s, 1887, 107%; North Carolina Special Tax 3d class, 8; South Carolina 6s, non-fund., 6; Tennessee 6s, 45; do. compromise, 44; Mutual Union Tel., 23; do. 68, 73%; Colorado Coal and Iron, 281/2; do. 68, 83; Consolidation Soal, 2714; New Central Coal, 14; Homestake Mining, 18; Ontario, 35%; Standard, 6%.

Boston.—Atchison, Topeka and Santa Fe plain 58, 85; Atchison 4½8, 81½; Atlantic and Pacific inc., 18½; Burlington and Missouri River in Neb. 68, non-ex-

empt, 103; Boston, Clinton, Fitchburg and New Bedford 56; Boston and Albany 78, 123; Boston Water Power, 2%; Central Iowa, 24; Columbus, Springfield and Cincinnati, 9; Chicago, Burlington and Quincy 48, 84%; do. 78, 126; Connecticut and Passumpsic Rivers, 91; do. 78, 116; Cheshire pref., 60; Cedar Rapids and Missouri River, 107; Chicago, Milwaukee and St. Paul, Dubuque div. 68, 102%; Flint and Pere Marquette, 231/4; do. pref., 99; Iowa Falls and Sioux City, 89; Kansas City, Fort Scott and Gulf pref., 120; do. 78, 111 1/2: Kansas City, St. Joseph and Council Bluffs 78, 113%; Leavenworth, Topeks and Southwestern 48, 75; Little Rock and Ft. Smith, 40; do. 78, 105; Maine Central, 80; Massachusetts Central, 3; do. 68, 26; Mexican Central, 21; do. 78, 741/4; do. inc., 21 1/4; Marquette, Houghton and Ontonagon, 78; do. pref., 118; Middlesex Central, 102%; New Mexico and Southern Pacific 78, 113%; New York and New England 6s, 104%; Portsmouth, Gt. Falls and Conway, 25; do. 4 1/48, 86; Southern Kansas and Western 78, 109 1/4; Sonora 78, 104%; Toledo, Delphos and Burlington, Branch inc., 10%; do. Southeast div. 6s, 48; Toledo, Cincinnati and St. Louis, 51/4; Wisconsin Central, 151/4; Atlantic Mining, 17; Brunswick Antimony, 14; Franklin, 15%; Huron, 2; National, 1%; Napa Quicksilver, 3%; Osceola, 33; Pewabic, 10%; Sullivan, 1.

Philadelphia.-Alleghany Valley Income scrip, 47; Central Transp., 34; Cincinnati city 7.308, 130; Harrisburg and Lancaster, 71; do. 68, 100%: Huntingdon and Broad Top Mt. consol. mort. 58, 90; Nesquehoning Valley, 53; Philadelphia, Wilmington and Baltimore 48, 933/4; Perkiomen 6s, 103; Philadelphia City 4s, 1903. 113 1/2; do. 6s, 1886, 108 1/2: Pennsylvania R. R. scrip, 11934; Pennsylvania Co. 68, 107; Philadelphia and Reading deben. 68, 62; do. scrip., 1021; Pennsylvania and New York Canal 78, 1896, 121; Pennsylvania Canal 6s, 87; Schuylkill Nav. B. L. 78, 65; St. Paul and Duluth, 40%: Susquehanna Canal, 5; do. 6s, 6o; Union and Titusville 7s, 921/3; West Jersey R. R., 49; West Jersey and Atlantic 6s, 1c8. The latest quotations are: City 6s, 108@120; do. free of tax, 127@134; do. 48, new, 108@114; Pennsylvania State 58, new loan, 116 @118; do. 48, old, 110@112; do. 48, new, 113@116; Philadelphia and Reading Railroad, 273/@27%; do. consol. mort. 78, reg., 123@124; do. gen'l mort. 68, coupon, 92@ 93; do. 78, 1893, 1181/2@120; do. 78, new conv., 74 @75; United New Jersey R. R. and Canal, 187%@ Buffalo, Pittsburg and Western, 18@181/2; Pittsburgh, Titusville and Buffalo 78, 94@95%; Camden and Amboy mort. 6s, 1889, 1121@11314; Pennsylvania R. R.,60 1/4 @60 1/4; do. general mort. 6s, coupon, 121 1/4; @1221/4; do. reg.,124@125; do. consol. mort. 6s, reg., 116@ 118; Little Schuylkill R. R., 56%@57%; Schuylkill Navigation pref., 12@12%; do. 68, 1882, 89%@90%; Elmira and Williamsport pref., 5c@60; do. 58, 99@100; Lehigh Coal and Navigation, 39@391/4; do. 68, 1884, 101@103; do. R. R. loan, 115 4@116; do. Gold Loan, 110@ 111; do. consol. 78, reg., 1151/@117; Northern Pacific, 49@491/; do. pref., 85%@86; North Pennsylvania, 64%@65%; do. 68, 103@ 104; do. 78, 119 1/4@--; do. 78, General mort. reg., 124@-Philadelphia and Erie, 1914@20; do. 78, 1121/2@1131/4; do. 58, 103@104; Minehill, 61@611; Catawissa, 22@23; do pref., 54@55; do. new pref., 52%@53; do. 78, 1900, 121@123; Lehigh Valley, 63@63%; do. 68, coupon, 120@ 121; do. reg., 120@121; do. 78, reg., 133%@134; do. consol. mort. reg., 119@120; Fifth and Sixth streets (horse), 175@200; Second and Third, 114@116; Thirteenth and Fifteenth, 74@76; Spruce and Pine, 44@-; Green and Coates, 80@88; Chestnut and Walnut, -@92; Germantown, 70@75; Union, 110@-; West Philadelphia, 130@ -; People's, 7%@7%; Continental, 100@103.

Baltimore.-Atlanta and Charlotte, 1st, 103%; Atlantic Coal, 1.00; Baltimore City 6s, 1890, 11314; do. 6s, 1886, 106; do. 68, 1893, 115; do. 58, 1916, 121 1/2; do. 58, 1300, 118; do. 58, 1894, 1121; do. 48, 1925, 1101; Columbia and Greenville 1st, 99%; Canton Co. 68, 108; George's Creek Coal, 91%; Maryland Defense 6s, 101%; do. 6s, 1890, 107%: North Carolina consol. 48, 79; Northern Central 58, Series A, 99%; Ohio and Mississippi, Springfield div. 6s, 115%; Richmond and Danville gold 6s, 95; Shenandoah Valley 68, 951; Virginia Midland 5th mort., 94; Virginia 10-40 coupons, 57; Western of Alabama 88, 21434; Wilmington, Columbia and Augusta, 90. The latest quotations are: Atlanta and Charlotte 1st, 103%@104; Baltimore and Ohio, 200@-: Baltimore City 6s, 1886, 105%@106; do. 68, 1890, 113%@113%; do. 68, 1902, 125 @-; do. 58, 1894, 1121/2113; do. 58, 1916, 121@122; do. 48, 1920, -@109; do. 48, 1925, -@111; Columbia and Greenville 18t, 1916, 991/200; Canton 68, gold, 1071/2

@108; Marietta and Cincinnati 78, 1891, 1291/@130; do. 78, 1896, 99@991/4; do. 88, 1890, 531/@531/4; Northern Central, —@55; do. 68, 1885, 1021/@104; do. 68, 1900, gold, 1141/@—; do. 68, 1904, gold, 1131/@—; do. 58, Series A, 991/@100; Ohio and Mississippi, Springfield dir. 115@1151/4; Richmond and Danville gold 68, 95@96; Virginia Midland 5th mort., 931/@94; do. inc., 48@53; Virginia consol., 55@551/4; do. 10-408, 39@42.

A DRIVER of a Boston street car is a sort of Mark Tapley who can see some elements of fun even in a balky horse. This is the way he describes a very common street car experience: "After the balky horse has stopped ten or fifteen times on the route he fairly gets his mad up and declares he wont go any further. Well, the conductor rings the bell and only one horse starts, and we don't go worth a cent. So I've nothing to do but to lick the balky horse. And the lady inside next the window takes her tongue away from the ruff of her mouth with a noise like an infant torpedo, and says: 'Jest see how that man is beating those horses.' And the old lady next to her says: I know it. Did you ever see anything like it! I shouldn't think they'd let him.' Then somebody else says: 'I'd like to know what's the matter now? This is about the tenth time we've stopped since we left the bridge. I don't see why we can't get along without so many stops.' Then somebody yanks open the door and calls out: 'Say, driver, what's the matter? Why can't we go on?' Somebody on the platform says: 'Horse bocky!' 'Horse bocky' says the other. Well, that aint no way to manage a bocky horse. Why don't somebody get out and lead him? I don't see any reason why a whole carful of people should be kept waiting in the middle of the street just because the driver don't know his business.' Then finally the horse gets to waltzing. That always frightens the women. They holler and most of the passengers stand up in the car to see what's going on, and the horse makes up his mind all of a sudden to go on, and the way them people go down does me more good than all the rest of it. And so it goes on. No fun driving a horse-can? Well, I suppose there aint to a man who hasn't got it in him."

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THE LAKE SHORE AND
MICHIGAN SOUTHERN RAILWAY CO.,
TREASURER'S OFFICE,
GRAND CENTRAL DEPOT,
NEW YORK, Dec. 22, 18

THE BOARD OF DIRECTORS OF THIS COMPANY
TWO PER CENT upon its capital stock, payable on
THURSDAY, the FIRST day of FEBRUARY next, at this
office.

office.
The transfer books will be closed at 3 o'clock p. m. on
FRIDAY, the 20th inst., and will be reopened on the
morning of Monday the 5th day of February next.
F. W. VANDERBILT, Acting Treasurer.

OFFICE CENTRAL PACIFIC RAILROAD COMPANY, SAN FRANCISCO, Jan. 5, 1883.

THREE DOLLARS PER SHARE-WILL be paid on presentation of dividend warrant No. 15 on or after Feb. 1, at this office, or at the office of the company, No. 23 Broad-st., New York. Transfer books will be closed from 7 P. M., Jan. 15, to 10 A. M.. Feb. 3. By order of the Board of Directors.

E. H. MILLER, Jr., Secretary.

NOTICE.—THE ANNUAL MEETING OF THE STOCK-holders of the AMERICAN RAILROAD JOURNAL Co. will be held on Wednesday, January 24, 1883, at 2 ° clock P. M., at the office of the Company, 284 Pearl street, New York, for the purpose of electing Trustees.

C. T. VALENTINE, Secretary.

# CEO. R. WOOD.

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CHICAGO, from THURSDAY, the 24th day of May, to SATURDAY, the 23d day of June, 1883, in the INTER-STATE EXPOSITION Buildings, the largest and best adapted for the purpose in the United States

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Secretary.

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One Second-hand "Tank" Narrow-Gauge Engine, 10 tons. Several Second-hand Standard-Gauge Locomotives in good order, immediate delivery.

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Cars-Passenger and Freight Cars of all descriptions for early delivery.

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# RAILROAD AND CANAL DIVIDEND STATEMENT.

Showing the amount of Stock Outstanding, the Dividend Periods and the date of last Dividend.

farked thus(*)are leased roads.	Stock out- standing.		Dividend Payable.	Marked thus(*)are leased roads.	Stock out- standing.	Divide'd Periods.		Markedthus(*)are leased roads.	Stock out- standing.		Last Dividend Payable.
lbany and Susq*100	2,500,000	semi-an	Jan. '83 2	Little Miami 50	4,637)300	q'arterly	Dec. '82 2	Ware River*	750,000	semi-an.	Jan. '83 33
Atch., Top. and S. Ferco Atlanta and W. Pointroo	1,232 200	semi-an	Jan. '82 6	Little Rock & Ft. S 100 Little Schuylkill* 50	2,646,100	semi-an.	July' 81 108 Jan. '83 31/4	Warren (N. J.)100 Warwick Valley100	1,800,000	semi-an.	Apl. '82 33 July '82 23
Atlanticand St. Law*100	5,840,000	semi-an	Sept. '82 3	Long Island 50	10,000,000	q'arterly	Feb. '83 1	Westchest&Phil.prefico	821,300	semi-an.	July '80 2
Augusta and Savan'h100 Avon,Geneseo&MtM*100	1,022,900	semi-an	July '81 3%	Louisville & Nashv100 Lowell & Andover100	19,130,913	semi-an.	Jan. '82 3 %	West Jersey	1,359,750	semi-an.	Sept. '82 3 July '82 3
Saltimore and Ohio. 100	14,792,566	semi-an	Nov. '82 5	Lykens Valley100	600,000	q'rterly.	Oct.' 81 2 %	Wil., Col., & Aug100	060,000	semi-an.	Jan Bas
Washington Br100	5,000,000	semi-an	Jan. '83 3 Nov. '82 5	Manchester & Lawco	1,000,000	semi-an.	Nov. '82 5	Winchester & Poto'c.*100	180,000	semi-an.	Jan. '82 2
Berkshire*	600,000	q'arterly	Apl. '82 1%	Manhattan	6,500,000	q'rterly.	Jan. '83 1 36	Winchester & Strasb.*100 Worcester & Nashua. 75	74,700	semi-an.	Jan. '83 3 Jan. '83 1
Boston and Albany100	20,000,000	q'arterly	Dec. '82 2	" 2d pref. roo	6,500,000	q'rterly.	Jan. '83 1 1/2	HORSE-POWER R. R.	.,	-	031)
Bos. &N.Y. AirLine pf. 100 Bos., Cl., F. &N. B. pref. 100		semi-an	Oct. '82 31/2	Marietta& Cincinnati 50	8,105,600	semi-an.	Sep. '66 38	Albany City100	900 000	annual	'80 5
Bos., Conc. & Mont. pf*100	800,000	semi-an	Nov. '82 3	" 2d pref 50	4,440,000	semi-an.	Sep. '66 38	Baltimore City 25	1,000,000	semi-an.	Jan. Roa
Boston and Lowell. 500	3,940,000	semi-an	Jan. '83 21/4 Nov. '82 4	Marq.Hout.&Ont.pfco		semi-en	Aug. '82 4 Aug. '82 3	Balt., Cat. & El. Mills100 Bleecker St. & Ful. F'y.100	80.000	semi-an.	Jan Boot
Boston and Maine100 Boston & Providence100	4,000,000	semi-an	Nov. '82 4	Massawippi*			Oct. '82 1 1/2	Boston&Chelsea pref. 50	900,000	semi-an.	July '82 Oct. '82 3
Attleborough Br 100	131,700	semi-an	Jan. '83 3%	Michigan Centralfoo	18,738,204		Feb. '83 2	Broadway (Brooklyn)100	250,000	qarteriy	Oct. '82 6
Bos., Revere B & Lynn 100 Buffalo, N. Y. & Erie*. 200	419,400	semi-an	Jan. '83 3 Dec. '82 3	Middlesex Centralroc Mill Creek&Minehill* 50	280,000	semi-an.	Aug.'82 3 July '82 5	B'way&7th Av,(N.Y.)100 B'klyn&Hunter's Pt.100	2,100,000	q'arterly	Oct, '82 2 Oct. '82 6
Buff., Pitts. & West.pf. 50	1,457,000		Jan. '83 3	M.Hill& Schuyl.Hav* 50	4,022,500	semi-an.	Jan. '83 31/4	Brooklyn City100	2,000,000	g'arterly	Nov. '82 3
Camden & Atlantic 50 pref. 50	377,400	q'arterly	Nov. '82 3 Nov. '82 4	Missouri Pacificoo Mobile&Montgomery 100	28,169,800	q'rterly.	Jan. 831%	Bushwick (Brooklyn)100	300,000	semi-an.	Oct. '8a 6
Camden & Burl. Co100	381,025	semi-an	July '82 3	Morris and Essex 50	15,000,000	semi-an.	Jan. '33 336	Cambridgeico Cen.Park,N.& E.Riv.100	1.800.000	q arterly	Oct. '82 4 Oct. '82 6
Canada Southern 100	15,000,000		Feb. '81 21/2	Mt Carbon&PtCarbon 50	282,350	semi-an.	July '82 6	Christoph'r&TenthStroo	650,000	semi-an.	Aug. '82 2
Dape May & Millville* 50	447,000	semi-an	June'81 3 Oct.'82\$21/2	Nashua & Rochester.100			Nov. '82 4 Oct. '82 1 1/2	Citizens' (Phil.) 50	192,500	q'rterly.	Jan. '82 2
" pref 20	2,200,000	semi-an	Nov. 823%	Nashv. & Decaturroc	1,827,000	semi-an.	June'81 3	Citizens' (Pbg.) 50 Coney Island&Bklyn100	500,000	semi-an.	'80 14 Oct. '80 5
new pref., so	1.000,000	semi-an	Nov. '82 3%	Nash.,Chat.&StLouis 25	6,670,32	semi-an.	Apl. '82 1 16	Continental (Phil.) 50	580,000	semi-an.	Jan. '83 6
Dayuga and Susq.* 50 Dedar Rapids&Mo.R*100	6,850,400	q'arterly	Nov. '82 1 36	Naugatuck	1,300,000	semi-an	July '82 5 Sept. '82 3	D.Dock, E.B'way&Bat100 Eighth Av. (N. Y.)100		q arterly	Aug.'82 4 Oct. '82 3
pref. roc	760,600	semi-an	Aug . 82 3%	N.Castle&Beaver Val* 50	600,000	q'rterly.	Oct. '81 -	42d St. & G. St. Ferry 100	747,000	semi-an	May '82 6
Central of Georgiazoo Central of New Jersey zoo				NewLondonNorth'n*100 N. Y. Cen. & Hud. R. 100	80 428.22	q'rterly.	Jan. '82 1 %	Frankf.&Southw (Ph) 50 Germantown, (Ph.) 50	600,000	q'rterly.	Oct. '82 6
Central Ohio* 50	2,437,950	semi-an	Jan. '83 3	N. Y. and Harlemro	7.050,000	q'rterly.	Jan. '834	Girard College (Ph.) . 50		semi-an	Jan. '83 2 July '71 3
pref 50	411,550	semi-an	Jan. '833	" pref.roc	1,500,000	q'rterly.	Jan. '83 4	Grand St. & Newton. 100	170.00	r semi-an.	July '8- a
Central Pacific	2.155,300	semi-an	Jan. '83114	" City Line N.Y., Lake Erie & West. 100	77.087.60	. ammuan	Арт. 62 3	Green&Coates St.(Ph) 50 Heston, Mantau&F'm 50	708,05	g rterly	Jan. '83 3 Jan. '75 4
Ohicago and Alton100	11,181,741	semi-an	Sept. '82 4	" pref. ro	7.987.50	annual.	Jan. '83 6	Highland 100	600,00	o semi-an	July '82 4
Ohi., Burl. & Quincy. 100	2,245,400	semi-an	Bept. '82 4	N. Y., N. H. & Hart100 N. Y., Prov. & Bostonico	15,500,000	semi-an	Nov '800	Lomb.&SouthSts(Ph) 25 Lynn and Boston100	105,00	o semi-an	Oct. '75 4
Chi., Iowa & Nebras*.100	3,916,200	semi-an	Jan. '83 4	Niag.Bridg&Canand*10	1,000,000	semi-an	July '81 3	Malden and Melrose.100		O semi-wi	Nov. 82 4
Thi., Mil. & St. Paul. roo	0-	Lacrost am	O-4 10 - 44	North Carolina*o	3,000,000		Sep. '81 3	Metropolitan (Bost.). 50	1,500.00	o semi-an	Jan. '82 4
Ohi. & N. Western100	14,401,403	semi-an	Dec. '82 31/2	N. Eastern (S.C.) prefro			. May '81 4	Middlesex (Boston)100 N.Y.,Bay Ridge&Jam100	650,00	o semi-an	Nov. '82 3 Oct. '78 7
prei. ro	21,525,353	q arterly	Dec. 82 2	Norfolk & Western pref	15,000,000	q'rterly	Dec. '82 \$1	Ninth Av. (N. Y.) 100	797,32	0	
Chi., R. I. & Pacific. 100 Chi. and West Mich 100	41,960,000	q'arterly	Feb. '83 1 %	North Pennsylvania. 50 Northern Central 50	4,527,15	q'rterly	Nov. '82 1% Jan. '83 4	People's (Phila.) pref. 25		5	********
Chi., St.P., M.&O. pref. 10	10,300,000	q'arterly	Jan. '83 1%	Northern N. Hampshio	3,068,40	semi-an	Dec. '82 3	Philadelphia City 50	115,25	emi-an	July '82 2 July '82 4
Cin., Ham. & Dayton 10	3,500,000	semi-an	Jan. '83 3	Northern Pacific prefro	42,312,58		Jan. '83 11.1	Phila. and Darby 20	200,00	o semi-an	July '81 3
O., Ind., St. L. & Chizo Cin., Sand. & Clev.pf. 50	6,000,000	g arterly	Nov. '83 1 1/2	Norwich&Worcester*100 Oregon &Transcont'1.100	2,004,40	o'rterly	Jan. '83 5	Phila.&Grey's Ferry. 50 Pbg, Alleg.&Manches. 50	308,00	o semi-an	- Jan. '82 6
Clev. Col. Cin. & Ind. 10	T4.007.800		Feb. '82 2	Old Colony	7,333,80	semi-an	. Jan '83 3%	Ridge Avenue (Ph.) 50	420,00	o semi-an	Oct. '81 3
Clev. and Pittsburg* 50 Columbus & Xenia*. 50	11,244,336	q'arterly	Dec. '82 1%	Oregon R'way&Nav.10 Oswego & Syracuse10		q'rterly	Nov. '82 2 Aug.'81 436	Second Avenue (N.Y.)100	1,199,50	o semi-an	. July '82 4
Ool., Hock. Val. & Tol. 10	1,700,200	d areari	Jan. '83 216	Panama	7,000,00	semi-ai	Jan. '83'636	Second&ThirdSt.(Ph) 50	771,07	semi-an	Jan. '83 4 July '81 3
Concord and Ports.*. 10	1,500,000	semi-an	Nov. '82 5	Paterson & Hudson*.10	630,00	semi-an	July '82 4	Sixth Avenue (N. Y.)100	750.00	n semi-an	. May 'Sar
Concord and Ports 10 Conn.& Passump.Riv <sub>10</sub>	350,000	semi-an	Jan. '83 31/4	Paterson & Ramapo.ro Pember.&Hightst'n*. 5			July '82 4 Jan. '82 3	South Boston	172.00	o semi-an	. NOV. '82 3
Connecticut River 10	2,100,000	semi-an	Jan. '834	Pennsylvania 5	83,786,57	semi-an	. Nov. '824 1/2	South Boston 50 Third Avenue, N. Y100	2,000,00	o q'rterly	Jan. '83 4 Aug '82 5
Cumberland Valley 5	1,292,950	q'arterly	Oct. '82 2 1/8 Oct. '82 4	Pennsylvania Co 5 Peoria & Bureau Val*10	20,000,00	annual	Dec. 82 4	13th and 15th sts.,Ph 50 23d street, N. Y100	334.52	q'rterly	Jan. '83 4
" 2d pref. 5	243,000	semi-an	Oct. '82 4	Philadelphia & Erie*. 5	7,013,70	o semi-an		Union, Boston	274 20	semi-an	- Aug. 82 4 Jan. 82 4
Danbury & Norwalk. 5	600,000		Oct. '82 21/2	" pfd 5 Phil,Ger.&Norrist'n* 5	2,400,00	semi-an	Jan. '75 4	Union, Phila 50	1,005,00	o semi-an	Jan. '82 7
Dayton and Mich.* 5	2,402,573	g semi-ar	July '82 2	Phil. and Reading	2,231,90	q rterly	Jan. '76 24	West Philadelphia 50	750,00	emi-an	July '77 1
Delaware* 2	1,468,940	semi-ar	Jan. 1'83 3	Phil. and Reading 5	1,551,80	q'rterly	July '76 31/2	CANALS.			
Del. & Bound Brook*10 Del., Lack.& Western	1,652,000	q'arterly	Nov. '82 1%	Phila, and Trenton10	1,250,10	o q rterly	Jan. 83 2 %	Chesapeake and Dela 50	2,078,03	8 semi-an	June'75 2
Denver & Rio Grande. 10				Phila., Wil. and Balt. 5 Pittsb., Ft. W. & Chi.*10	10,714,28	q'rterly	Jan. '83 1%	Delaware Division 50 Delawa. and Hudsonico			
Detroit, Lans. & Nor. 10	1,825,600	semi-ar	Aug.'80 236	Pittsb., Ft. W. & Chi.*10 "Special Imp. 10	6,770,90	q'rterly	Jan. '83 1%	Delaware & Daritan 100	E 847 40	o G Freriy	Jan San
Dubuque&Sioux C'yero	2,503,380	semi-ar	Aug. '82 3 %	Pittsfield&N.Adams10 Portl., Saco & Portsmio		semi-an	Jan. '83 21/2 Jan. '83 3	Lehigh Coal and Nav 50 Monongahela Nav 50	TT 204 25	O SCILLI-BE	. Hec Ros
East Pennsylvania*., 5	1,709.550	semi-ar	Jan. '833	Providence & Worces. 10	2,000,00	o semi-an	Jan. '83 3	morris, consolidated. 100	1.025,00	o semi-an	- Aug. '822
East Mahanoy* 5 Eastern (N. H.)10	392,950	semi-ar	Jan. '83 3	Rensselaer&Saratog.*10 Richmond& Danv10	7,000,00	o semi-an	July '82 4 Aug. '82 2	preierred100	1.175.00	o semi-an	- Aug. '82 4
Eel River10			Dec. '82 21/4 Dec. '82 \$1	Richmond & Petersbio			Aug. '82 2	Pennsylvania 50 Schuyl. Nav., com.*. 50	4,501,20	annual.	Oct. '82 50
Elmira& Williamsp't* 5	500,000	semi-ar	Nov. '82 1 1/2	Roch.&Genesee Val.*10	555,20	semi-an	. Jan. '82 3	" pref 50	3,200,00	annual.	Oct. '82 1
" pref. 5	500,000	semi-ar	July '82 3 1 Dec. '82 1 1	RomeWater.&Ogdensio Rutland preferred 10	5,293,90	semi-an	Jan. '83 3 Sept. '82 1	MISCELLANEOUS.			1
Evansville & Terre H. 10		semi-ar	Jan. '83 6b	St.L., Alt. & T. Haute. 10	2,300,00			Adams Express100	72 000 00	o'rterly	Dec. '80 c
Fitchburg	0 4 500,000	nerry f-ar	Jan '822	St.L., Alt. & T. Haute. 10	2,468,40	6	Dec. '82 4	American Express 50 Amoskeag Manuf.Co.100 Calumet&HeclaMin'g 20 Central Mining Co.	18,000,00	o semi-an	Jan '83
F. & P. Marquette pf. 10 Ft. W. & Jackson pref. 10	0 6,500,000	Bem1-al	May '80 0	St. L. &S. Fran. 1st prefio	4,500,00	semi-an	Feb. '83 31/4	Calumet& HeclaMin's	3,000,00	semi-an	June'81 5
Georgia	0 4,200,000	q'arterly	Jan. '83 3 1/4 May '82 2 1/4 July '82 2 1/4	St.L., J.Mt. & South'n. 10 St.L., Jac'ville & Chic. 10 "" pref. 10	1,293,00	0	. Aug. '82 4 1/8				
Granite	0 1,250,000	o semi-ai	Jan. 833	St. P. & Duluth pref.10	1,034,00	gemi-en	· Aug. 82 436	Composition com: 100	TO 250 00	o semi-an	- Jan '80 o
Greenw'h&Johnsonv.10 Han. & St. Jo. pref .10		semi-ai	Jan. '83 4 Aug. '82 31/4	St. P., Minn. & Manro	4,705,00	q'rterly	Jan. '83 3% Nov. '82 2	Maryland Coal	*******	semi-an	Jan. '83 3
Harrisbg&Lancaster	0 1,182,500	o semi-ar	July '82 314	Schuylkill Valley 5	576,05	o semi-an	July '82 2 1/4	Mariposa L. & Miningioc	TO 000 00	01	
H'ford & Conn. West'n. 10 Housatonic pref10		o d'arteri	Nov. '82 116	Seaboard & Roanoke.ro Shamokin V.&Pottsv 5	1,229,60	o semi-an	Nov. '82 5 Feb. '82 3	Missouri Val.LandCoro	5,000,00	0	*******
Illinois Central	0 30,000,00	o semi-a	Bept. '82 3 16	Shore Line*	0 1,000,00	o semi-an	July '82 4	National Tube Worksroom	200,00	o g'rterly	Jan '82 0
Ia. Falis & Sioux City*10	0 4,623,50	o q'arteri	y Dec. '82 1 %	Sioux C.& Pacific prefro	0 160,00	o semi-an	. Oct. '82 336	Pac. Man Steamship.100	20,000,00	o q'rterly	- Sept. 60 a
Iowa B. Land Co Jeffersony. Mad.&Indio	7,690,00	o q'arteri	y Nov. '82 1 y May '82 1%	South Br. (N. J.)*10 South Western (Ga.)*10	0 2.802.30	o semi-an	Jan. '82 3 Dec. '82 3 %	Pullman Palace Car., 100	5,000,00	o q'rterly	Nov. '82
Joliet and Chicagos re	0 1,500,00	o q'arterl	y June'82 1%	Stockbridge&Pitts.*.10	448,70	o q'rterly	. Jan. '82 1 16	Quicksilver, com100	5,708,70	O	May '82
Kan.O.,Ft.S.&Gulfre	4,000,00	0	. Feb. '822	Syr., Bingham&N.Y.*10 Terre Haute & Ind10	0 2,500,00	o semi-an	Aug. '822	Quicksilver, com100 "pref100 Quincy Mining Co 25	4,291,30	0	May '82 6
Kentucky Central	2,750,00	semi-a	n Aug. '824 n June'811	Union Pacifica	0 60 8es TO	g o rterly	Jan 12 1/	Quincy R. R. Bridge, roc	40,000 8h	semi-an	Aug. '82
Kentucky Central	5,583,50	o semi-a	n June'81 1	United Cos of N. J.*. ro	0 20 400 00	o g'rterly	Jan. 'Saak	SiouxC.&I.F.L.&L.Coroc	500,00	semi-an	Dec. '82 3
Take Hhorek Mich. So. r.	00 to 466 mg	o o'arter	V Feb '820	Utica, Shenango&S Vic Utica and Black Riv.rd	0 4 000 00	n semi-an	Nov 'Sa	Quincy Mining Co 22 Quincy R. R. Bridge not SiouxC.&I.F.L.&IConot Spring Mt. Coal10 Topeka Equip'nt Co10 United States Ex10 Wells-Fargo & Co. Exicot Western Union Tel. 10	1,500,00	semi-an	Dec. '82 3
Lawrence*. Lahigh Valley  pref.	533,50	o g'arterl	y Jan. '83 2	Vermont and Mass., re	D 2 050.00	10 BATD1-87	LOct See	United States Ex	255,50	o gemi-an	NOV '82 5
THE M. CATTOO				Vermont Valley 10				11 mm m m m	1,,000,00		OIS ]

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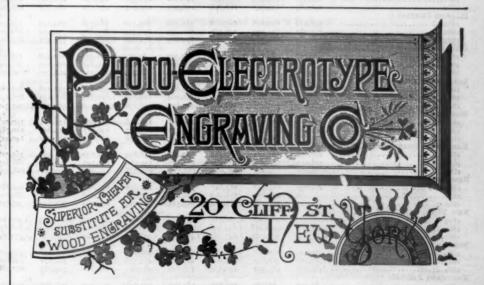
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# RAILROAD EARNINGS. MONTHLY.

A STATE OF A SECRETARIAN A STATE OF THE PARTY OF THE PART													
BURL., CEDAR RAP. & NORTHERN: 1880	184,316	February. 165,170 124,510 225,631	March. 188,325 148,551 224,107	April. 141,652 184,680 178,304	May. 149,504 165,630 199,278	June. 153,378 205,912 211,257	July. 143,432 174,351 198,476	August. 160,160 209,112 224,921	September. 179,804 221,801 261,439	October. 204,991 221,748 300,155	November. 189,330 202,180 278,439	December. 193,419 232,812	· Total. 2,053,484 2,259,037
CENTRAL PACIFIC: 1880	1,602,907	1,454,218	1,373,438 1,704,658 1,969.737				1,840,067 1,899,346 2,020 000	1,973,438 2,088,519 2,277,000	2,185,303		2,199,466	1,905,221	
1880 1881 1882	162,540	198,681 184,389 209,708	222,762 228,479 208,981	227,343 267,454	199,443 252,235 255,939	214,352 241,135 260,753	238,236 225,096 306,831	359,110 262,858 371,175	247,303 247,144 332,219	211,820 236,396 347,882	240,795 230,022 287,850	218,000 203,562	2,674,308 2,702,762
CRICAGO AND ALTON: 1880	487,890	497 013 461,641 530,480	626,473 529,915 584,483	542,961 558,190 561,787	616,128 548,556 553,412	617,524 635,860 613,886	708,906 676,205 671,537	761,120 769,751 800,624	767,349 774,790 881,109	785,199 771,844 812,032	696,776 672,380 748,151	574,695 635,307	7,718,198 7,553,988
CHICAGO AND NORTHWESTERN: 1880	1,240,664	1,131,683 963,204 1,474,176	1,361,725 1,178,795 1,672,931	1,294,573 1,474,612 1,668,741	1,875,608 1,879,006 2,110,947	1,671,177 2,306,440 2,022,700	1,609,686 1,983,032 2,025,736		2,020,245 2,292,676 2,497,053		1,855,622 2,019,038 2,069,287	1,477,902	
CHICAGO, BUBLINGTON AND QUINCY 1880	1,432,740 1,307,948 1,658,834	1,411,870 1,034,821 1,457,300	1,732,518 1,418,149 1,566,217	1,489,894 1,574,371 1,530,838	1,909,627 1,679,455 1,505,261	1,682,956 2,083,803 1,437,164	1,773,643 1,888,358 1,625,006		1,862,285 2,262,981 2,186,400		1,837,860	1,552,018	
CHICAGO, MILWAUKEE AND ST. PAU 1880	764,298 990,847 1,435,000	738,749 682,717 1,377,000	900,675 916.989 1,561,000	871,041 1,259,946 1,518,000	1,134,745 1,538,491 1,629,000	1,037,958 1,729,811 1,620,000		1,678,361	1,257,677 1,644,676 1,950,000	1,493,620 1,591,052 2,251,000		1 397,308	
CHICAGO, ST. PAUL, MINNEAPOLIS													
1880	257,786 307,498	173,078 158,594 315,100 HICAGO:	259,783 251,648 405,779	259,208 261,211 356,558	332,146 350,124 406,420	218,093 404,562 363,109	236,995 383,202 331,480	351,013 385,586 394,555	300,833 373,370 482,997	342,052 379,029 546,671	342,894 392,921 517,595	312,173	3,122,097
1880 1881 DENVER AND RIO GRANDE;	182,523	172,541 171,511 186,879	198,220 191,005 208,066	168,199 183,710 204,269	186.995 191,056 199,110	192,299 195,948	204,138 177,161 209,564	233,478 229,858	343,627 228,653 259,379	221,320	209,014 211,014 219,732	198,254	2,412,185 2,296,916
1880 1881 1882	307,476	126,922 317,681 412,987	160,883 398,493 535,055	164,889 433,111 559,917	193,925 514,767 614,298	295,455 584,230 537,462	373,132 548,284 495,797	400,133 606,193 574,040	406,583 589,287 595,306	473,318 638,432 630,598	408,562 547,055 512,965	349,196 643,417	3,478,007 6,206,812
HANNIBAL AND ST. JOSEPH: 1880		166,965 122,874 154,717	216,061 176,356 168,798	206,735 190,812 148,913	191,317 172,950 154,917	179,398 190,740 155,030	224,319 201,899 184,347	238,081 210,240 258,628	233,448 215,103 239,196	242,214 231,913 238,442	207,147 195,607 249 252	279,635 180,376	2,561,366 2,230,961
ILLINOIS CENTRAL: 1880	728,173	613,806 524,499 689,387	613,008 557.789 695,371	535,732 662,493 674,603	665,120 673,259 674,749	681,736 803,887 663,746	724,095 720,004 752,251	732,755 868,407 813,600	806,836 828,847 828,238	880,211 815,238 865,325	783,120 737 218 752,144	673 182 763,475	8,304,812 8,586,397
IRDIANA, BLOOMINGTON AND WEST 1880	80,498	89,690 83,261 175,755	116,185 192,085 206,235	90,374 203,677 205,934	85,733 200,064 182,554	106,954 199,846 186,133	103,438 190,125 206,072	116,732 272,114 278,814	110,622 247,332 273,100	121,343 225,678 269,c46	95,621 200,450 256,998	104,619 156,697	1,233,079
LOUISVILLE AND NASHVILLE: 1880	674,455	575,035 805,124 960,315	612,593 947,959 1,068,834	563,883 855,704 953,603	655,014 828,726 958,130	976,229 1,227,885 1,215,490	772,538 817,135 1,063,765	827,089 876,192 1,043,912	931,911 951,566	1,000,327	953,087 1,065,223 1,192,390	949,185 1,153,779	9,491,346 11,344,361
MOBILE AND OHIO: 1880	250,116	904,095 916,768 158,590	168,302 230,916 148,166	140,091 163,551 141,957	129,248 145,803 134,378	121,855 136,517 135,184	131,621 135,549 136,398	140,593 160,789 140,443	184,247 210,262 160,031	264,714 256,924 265,201	251,368 262,986 295,110	287,372 258,812 307,643	2,273,622 2,403,224
NASHVILLE, CHATTANOOGA AND ST 1880	205,634 178,143	191,154 190,866 159,961	169,457 207,710 161,005	155,466 183,525 154,155	158,839 104,430 135,556	144,130 154,549 119,074	151,594 150,430 160,991	169,326 168 317 168,304	167,473 179,979 168,999	178,266 172,121 180,319		175,966	2,049,484 2,075,256
NEW YORK AND NEW ENGLAND: 1880	164,232	149,907 173,614 217,261	183,845 912,019 965,323	179,689 216,913 263,544	183,701 217,185 283,244	219,891 231,518 290,060	205,056 246,821 340,920	249,885 280,524 353,726	235,642 299,573 338,490	215,491 261,200 310,145	210,856	198 108 237,729	2,396,302 2,809,255
NEW YORK, LAKE ERIE AND WEST	TERN:						0 .,	000.7	55 . 15				
1879 1880 Nobthern Central:	. 1,147,173 . 1,296,381	1,252,218	1,356,780 1,644,958 1,847,261		1,592,544		1,580,976	1,606,874	1,492,497 1,786,417 1,734,200	1,713,697 1,899,010 1,814,866	1,799,338		16,509,127
1880	. 386,157	330,860 382,657 413,551	415,325 452,900 430,194	386,130 487,273 435,129	329,788 465,588 482,607		450,298 440,811 509,683	453,923 498,008 667,488	464,093 429,565 592,435	512,918 449,664 550,225	487,160	494,310 476,622	5,050,387 5,443,697
1881	. 116,508	78,803	119,357 162,984 384,000	185,700 216,210 438,000	217,613 312,705 568,332	412,024	393,260	223,500 434,085 727,377	330,300 534,363 789,700	358,456 583,955 834,460	475,610	220,993 434.331	2,629,710 4,044,576
1881	. 224,303	245,372 225,501 246,246	327,678 285,573 265,311	334.947 293.323 277.851		350,585	291,669	347,532 303,849 420,329	322,737 276,522 386,455	367,082 292,392 397,164	284,078		3,727,733 3,454,309
8T. LOUIS AND SAN FRANCISCO: 1880	. 212,435	178,234	193,146 262,050 274,959	265,298	283,399	260,254	252,333	286,373	279,064	308,569	284,320		2,698,371 3,160,245
ST. LOUIS, ALTON AND TERRE H. 1880	. 153,139 . 175,725 . 168,987	149,619	268,994 201,137 178,145	155,462 197,447 157,450	172,177	165,896	165,393			221,863 204,336 229,963	169,795	153,852	
ST. LOUIS, IRON MOUNTAIN AND 1880	. 555,983 . 570,957 . 516,370	490,195 560,791	451,560 704,002 585,008	548,300	479,075	474,309	533,512	644,386	708,325	719,239	687,271	709 498	7,319,744
ST. PAUL, MINNEAPOLIS AND MAI 1880	. 180,239	159,482	361,798 320,962 531,004	425,685	382,642	405,322	387,488	414,954	485,736	605,70	508,530	528,262	
TEXAS AND PACIFIC: 1880	281,176	200,781	319,928	295,066	281,78	153,066	195,711 328,063	381,331	345,790	419,20	369,521	381,218	3,921,569
UNION PACIFIC RAILWAY: 1880	1,339,79	9 1,374,740	1,674,860	1,766,89	4 2,319,23	2,884,77	4 2,528,82	2,638,65	2,844,357	3,169,53	2,723,60	3,267,004	23,448,445
WABASE, ST. LOUIS AND PACIFIC 1880	776,790 Bii,61	759.451	978,689	1,023,48	4 948,77 8 2,144,66 4 1,804,86	0 1,308,99	3 1,131,75	2 1,542,83		1,397,78	I 1,343,55	6 1,328,27	5 12,428,118 8 14,461,570

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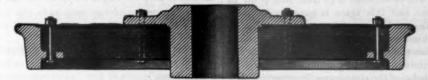
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This signal has been fully tested on the New York and New England Railroad at Dudley and Bird Streets, by practical operation, and has proved a complete success, to the entire satisfaction of the many prominent Railroad men and experts who have watched and examined it. It provides an Automatic Block, Crossing, Station, Switch, Bridge, Yard and Curve Signals, Gate and Revolving Lanterns. Being operated by the weight of trains passing over an incline bar, forcing c. mmon air through a tube, by means of a bellows, which is positive in its action, it is highly commended by all railroad officials who examined it.

The company can shortly fill orders to place it on any railroad, and invite communication from Railroad Officials from all parts.

# McLEOD AIR RAILROAD SIGNAL CO.,

4 Pemberton Square, Boston, Mass.

New York Office with Col. Thos. R. Sharp, 115 Broadway

#### Training Car Conductors.

GETTING AN INSIGHT OF THE DIFFICULTIES OF THE MEN ON THE REAR PLATFORMS.

"To BECOME a surface stree car conductor acceptable to both the public and the railroad company's officials, is not by any means so easy a transformation from any other business life as most persons suppose," a conductor old in the service said. "In the first place you've got to undergo a rigid examination of your knowledge of the streets across which your car is to pass. This is required in order that the officials may be certain before they take a new man that he is worth their attention. It is assumed that he can tell at once about what the distance is, for instance, between Canal street and Fourteenth street on up-town lines, or from Broadway to Sixth avenue on cross-town lines, or between any two important points on the road. This is required in order that the conductor may be able to know how long a time will be required to go from one point to another, and this again is necessary in order that the conductor may know not only when he is behind or ahead of time at a given point, but also whether he is going to be ahead or behind time at a point beyond. Besides, a close knowledge of the streets and the order in which they come is necessary in order that the conductor may know when to announce a street where some passenger has ordered him to stop the car. You know the names of the streets are not-always on the corner gas lamps as they

"This part of the examination of applicants is a recent invention. Nor was I required, when I first put my foot on a car platform, to go through a course of a week's training on a brother conductor's car before I was allowed to run a car of my own. This is the custom now, unless, of course, it is evident that the new man has talent enough to learn the business in a quicker time. It was a week before I learned the names of the streets and the order in which they came, but at the end of that week I could name every cross street from one end of the line to the other, backward or forward, as fast as I could make my tongue fly. It was a week of worry while I was learning, though, for often I hadn't the remotest notion when I was coming to a street at which a lady had told me to stop the car. I would keep a straight face when she came to the door, with red cheeks and flashing eyes, and demanded the reason why I had not stopped at 'her street,' and I answered that I had forgotten, for that would lead all the passengers and any spotter on the car to suppose that I was a regular old-time conductor. See?

"But even after the streets are familiar I find it difficult to keep track of myself at night, especially if it is foggy or if it rains, or even if it is very dark. When a car is crowded on a very wet night and I am inside collecting fares, the only way to keep track of my position is to duck down and peep out of the windows while I watch for certain landmarks which I have observed. Sometimes it is a white house, or a residence standing alone in its yard, or a queer old tree, or a vine clambering on a house front,

or a series of vacant building lots, or a big gilt sign, or a curve in the railroad track. After experience the new conductor can tell you where he is at any time without looking at anything outside of the car, and I have been told by some conductors that they could shut their eyes, ride a mile, and tell you to a car's length to what street they had come.

"The conductor must learn to observe the city ordinance requiring cars to be stopped on the furthest crossing, because by doing so the cross street is left clear for travel. Another thing to be learned is the method of using the indicators, which must be rung when a fare is collected. There is one at each end of the car, and the one at the forward end is the one to be rung. I mention that fact because a green conductor I had with me a few weeks ago spent a week with me, and you could not imagine that a human being could be so stupid. He tried to run one trip alone, and he succeeded in ringing the wrong indicator repeatedly, in ringing the indicator when he intended to ring the bell to stop the car, in stopping the car at the wrong crossings for passengers to get out, and in fact blundering at every step. It was his first and his last trip."

"What is the most difficult thing to learn?"
"To run the car on time—neither too fast nor too slow."

The reporter was about to jump from the car, and he ventured to remark: "You haven't told how you learned to collect and take care of the fares."

"I'm not giving everything away." Then, with a suspicious look at the reporter, "You are not a spotter, are you?"

The reporter jumped.—Sun.

#### INCORPORATION.

A CERTIFICATE of incorporation was filed at Albany, N. Y., on the 8th inst. of the Syracuse, Phœnix and Ontario Railroad Company, with a capital of \$750,000. This road is to connect with the Syracuse, Chenango and New York Railroad at Syracuse, and its terminus will be at Oswego, a distance of forty miles.

The charter of the Marshall and Northwestern Railway—narrow-gauge, ten miles of which are graded—has been amended so as to enable it to run from a point on said road from Marshall to Pittsburg, Texas; fifteen miles from Marshall to Jefferson; from thence to the State line, with a view to connect with the Texas and St. Louis Railroad at Magnolia; also to run from Marshall in a southeastern direction to the State line, north of Sabine river, with a view of building to Lake Charles, to connect with the Louisiana and Western Railroad.

The State Department at Harrisburg, Penn., issued on the 9th inst. a charter to the Philadelphia, Germantown and Chestnut Hill Railroad Company, the line of which runs from a point on the Connecting Railway, between Ridge avenue and Thirteenth street, in the Twenty-eighth ward of Philadelphia, to Chestnut Hill, in the Awenty-second ward, a distance of seven miles. The capital stock is \$1,000,000, and the stockholders are John P. Green, J. N. Dubarry, Henry D. Welsh, H. H. Houston, N. Parker Shortride, R. D. Barclay, H. M. Phillips,

John P. Wetherill, and Wistar Morris, of Phila delphia.

A CHARTER was granted at Harrisburg, Penn., on the 8th inst. for the New Castle and Salamanca Railway Company, the line of which runs from a point near Wampum, Lawrence county, Penn., through Lawrence, Butler, Mercer, Venango, Forest, and Warren counties to a point on the New York State line at a point near the Allegheny River in Warren county. Penn., a distance of 130 miles. The capital is \$1,300,000. The stock is held by James S. Negley, of Pittsburg; Thomas P. Simpson, W. S. Garner, F. W. Lockwood, and Samuel K. Schwenk, of New York; H. E. Collins, John H. McCreary, James S. Negley, Jr., Frank Hunnings, Charles F. Calhoun, William F. Aull and Edwin S. Hanna, of Pittsburg, A. G. Negley, of New Castle; L. Scott, of Waynesburg, Ohio.

THE Baltimore and Philadelphia Railroad Company was chartered at the State department at Harrisburg, Penn., on the 8th inst. The line of the road will run from a point on the boundary line between Delaware and Pennsylvania. in Upper Chichester township, Delaware county, Pa., to the city of Philadelphia, a distance of twenty-one miles. The capital stock is \$1,-200,000. The directors are Thomas M. King. Allegheny City; John M. Cleave, Pittsburg; Harry S. Burgesser, Pittsburg; Robert Garrett, John W. Davis, John K. Cowen, Baltimore, and Wm. S. S. Bissell, Allegheny City. The president is James B. Washington, of Allegheny City. The principal office is in Philadelphia. This is the Pennsylvania Division of the Baltimore and Ohio Line between Philadelphia and Baltimore. A corps of engineers is now engaged in surveying the Maryland Division.

THE Nazareth and Philadelphia Rail ad Company received its charter from the State Department at Harrisburg, Penn., on the 9th inst. The line of this road runs from a point near the borough of Nazareth, Northampton county, to a point on the North Pennsylvania Railroad between Iron Hill and Hellerstown, Northampton county, where a branch of the North Pennsylvania Railroad (long since abandoned) running to Freemansburg intersects the North Pennsylvania Railroad. The new road will be about ten miles long, wholly in Northampton county. The capital stock is \$100,000, and the stockholders are Charles Broadhead, Bethlehem; B. K. Jamison, J. H. Kershaw, Philip F. Kelly, A. G. Plumer, E. H. Millet, W. R. Merdith, William L. Nevin and F. R. Shattuck, of Philadelphia.

The Little Miami Railroad, which is one of the Pennsylvania Railroad lines west of Pittsburg operated by the Pennsylvania Company, has a first mortgage 6 per cent loan, of which \$1,492,000 is outstanding and which matures May 2 next. This the company proposes to refund into an equal amount of thirty year 5 per cent first mortgage renewal bonds.

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ESTABLISED 1831.

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which form non-metalic, permanently elastic compensating cushions, absorbing shocks and vibrations, and absolutely locking the nuts. These Washers have been adopted by a large number of railroads as the cheapest and best device in use. Flexible vulcanized-fibre dust guards and oil box packings, which are absolutely unaffected by oil and grease, are far more durable than leather and much cheaper.

Office and Factory, Wilmington. Del.

# H.W.JOHNS' ASBESTOS STEAM PACKING

Boiler Coverings, Millboard, Roofing, Building Feit, Liquid Paints, Etc. DESCRIPTIVE FRICE LIST AND SAMPLES SENT FREE. H. W. JOHNS MFG. 60., 87 Malden Lane, N.Y.

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Telegraph and Telephone Apparatus

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# JENKINS BROS.,

PROPRIETORS JENKINS PATENT VALVES, PACKING, &c. 71 JOHN ST., NEW YORK.
104 Sudbury St., Boston.

# SWEETLAND SAFETY LINK GUIDE

Patented August 29, 1882.



The guide is manipulated by means of the handle at the upper part, extending far enough above the draw-head to prevent danger; of the hand being orushed while coupling cars, and can be used in any place where an ordinary link is used.

The guide plate is made of one-quarter inch iron, ten inch by twelve inch—including the handle—and weighs less than six pounds.

For further particulars address.

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# RAILROAD IRON.

The undersigned, agents for the manufacturers, are prepared to contract to deliver best quality American or Welsh Steel or Iron Rails, and of any required weight and pattern. Also Speigel and Ferro Manganess

PERKINS & CHOATE,

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RUBBER HOSE PACKING, TUBING, SPRINGS, GASKETS, Etc.

RUBBER CLOTHING, LACE LEATHER, BELT HOOKS,

RAILROAD, MINING, AND MILL SUPPLIES.

No. 21 Park Place, NEW YORK.

#### The Prospective Terminus of a Trans-Continental Railroad.

YAQUINA Bay is a deep and narrow harbor on the Oregon Coast, 120 miles south of the Columbia River. Its shape is not unlike a baby's stocking-toe to the sea, heel to the northeast, with ankle reaching inland toward the southeast-and its area is about fifteen square miles. Much of this space is shoal flat, but a deep ship channel, nowhere less than 1,200 feet wide, and broadening in places to double that width, extends from inside the bar to where the bay narrows to the Yaquina River, distance about six miles. This channel is nowhere interrupted by shoals, its depth varies from four to eight fathoms, and its bottom affords a secure hold for anchors. On all sides hills rise with gentle slope from the water-line to a considerable height, completely land-locking the harbor and protecting it from the northwest gales of summer and the southerly storms of winter. One river, the Yaquina, pours its flood into the ankle extremity of the figurative stocking, and three large tide sloughs, almost rivers in volume, empty into its northern and southern sides. These tributaries disgorge large streams, which, with the ebbing tides, rush in a deep swift current through the bay and out into the ocean.

Its surrounding features are much like those at the mouth of the Columbia River, but on a much smaller scale. A sand cliff on the north side rises abruptly to a height of 200 feet, in appearance very much like Cape Hancock, and the southern side is low and flat, not unlike Point Adams. The distance across from land to land is half a mile. The channel from deep water inside to deep water outside is 2,000 feet long. Its course is southwest from a point midway between the headlands out half a mile from the shore line, its outer end being offshore a quarter of a mile of the southern point. It is straight and narrow, and in rough weather is clearly marked by the breaker line on either side of it. During the greater part of its 2,000 feet the water is comparatively deep, and for only 600 feet is it dangerously shoal. This is the channel at the present time. Its scutherly trend is due to the force of the summer north winds, which pile the sands in from the north side, but the winter gales from the south will force the sand in from the shore on the south side, and by the 1st of February the channel will have shifted a quarter of a mile toward the

The bar is of sand, overlying a rocky ledge, and the lead-line at extreme low water shows a depth of nine feet, which the tidal variation deepens to eighteen feet at high water. This is increased, at rare times when the underlying ledge is cleared of sand, to twenty-four feet, and this depth at high tide, it is expected by the government work now in progress to make permanent. It is proposed to build from the point on the south side of the entrance a jetty 3,000 feet directly west and out through the surf into the ocean. Its purpose is to close up the present or south channel and divert the flow westward in a straight line from a point midway between the headlands. This will afford a channel which neither the summer nor

winter storms can change, and will by confinement and increased acceleration of the currents scour the sand from the underlying rock ledge and keep the ledge clear. Work on this jetty was commenced in 1881, and it has been built out 550 feet from the high-water line. The first appropriation for the work was \$40,000. two-thirds of which was required for a plantdocks, tugs, scows, donkey engines, etc.-and the second appropriation, last year, was only \$10,000. The appropriation for this year is \$60,000, which will extend the jetty 700 or 800 feet. Work commenced on the 1st irst., and will be continued through the winter months with a force of twenty-five men. They will do nothing on the jetty itself, but will lay in a large store of rock to be used when good weather opens in the spring. The rock used on the work is hard and durable, and is brought by scows from a quarry on the Yaquina River fourteen miles from the point, and landed on the inside shore of the point half a mile from the work itself. The jetty is built of brush mattresses, cribs, and heavy stone, is from sixty to 100 feet wide at the base, twenty-five feet wide at the top, and so far has been built up to high-water line. It pushes out into the surf, and must stand the tremendous pounding of the waves with the added force of the currents as they rush in and out. It stood through last winter's storms without break or damage, and now appears to be solid as the eternal hills. From the beginning, J. S. Polhemus, civil engineer, an attaché of the United States Engineer office, at Portland, has had charge of the

The rock ledge which forms the backbone of the Yaquina Bar is a series of comparatively sharp points which could easily be blasted out. Expert engineers who have examined it variously estimate the cost at from \$275,000 to \$450,000, the larger figure probably more nearly approaching the cost. But until the business of the bay is greatly increased, it is not probable that the government can be induced to begin so great and costly a work. Three-quarters of a mile from the shore line, and directly opposite the entrance, a sunken reef lies parallel to the coast line. It is composed of a series of ledges, upon one of which the water is but eighteen feet deep at low tide. In rough weather the surf breaks heavily upon this reef. but the waves spend their force there, and even in the most boisterous storms the space inside the reef and between it and the entrance is comparatively calm. Vessels entering, sail south of this reef and before reaching the channel pass into the space protected by it. This is a peculiar advantage which no other harbor in the world possesses, and is of the highest value. There is no tug on the bar, but a pilot lives upon the point near the government work, and he can easily be hailed by approaching vessels; but they too often trust to their charts and to luck and come unpiloted. While I was at the bay a little steamer, the Ona, entered, guided by an Indian sailor whose only knowledge of the channel had been gained by one or two former visits.

So much for the entrance. It is now eighteen feet deep at high tide. Its depth will soon be permanently increased to twenty-four feet, and

by the expenditure of less than half a million dollars it can be made deep enough to float the deepest ships that sail the ocean. Yaquina River, which empties into the bay at its southeastern extremity, is at its mouth about equal in width to the Willamette at Salem, and its volume is much greater. It, with its tributaries, the Big Elk and Little Elk and a great number of creeks, drains a great section of country west of the Cascade Mountains, and pours out their gathered waters in a swift deep stream. It is navigable to a point twenty miles above its junction with the bay. Two small steamboats ply regularly upon it, and schooners have frequently ascended as far as Elk City, twenty-five miles from the ocean. There is some tide-flat and bottom land along its banks, but the greater distance they rise from the water-line to steep hills, clothed to their summits with a thick undergrowth, which, at this season, presents a beautiful variety of Autumn tints. There is no single landscape feature on the river which may be called grand, but along its whole course the views are fine. Neat homes dot the alluvial patches contiguous to it, and even among the high lands there are many good places .- Portland Oregonian.

The directors of the Littleton and Franconia Railroad Company, which was organized at Littleton, N. H., on the 2°th ult., are as follows: Cyrus Eastman, Henry L. Titton, George B. Redington of Littleton, E. B. Parker, Chas. H. Greenleaf of Franconia, Samuel N. Bell of Manchester, Joseph R. Dodge of Plymouth; Cyrus Eastman, president; Henry L. Tilton, treasurer; E. C. Stevens, clerk. It was voted that the directors be instructed to solicit stock and build the road.

According to the California papers the Central Pacific railroad is well equipped to prevent snow blockades this year. The famous snowsheds on the Sierra Nevadas have all been repaired and strengthened and several miles of new ones have been built. New snow-ploughs have been constructed—steel-clad ones, capable of ploughing out twenty feet of snow and to stand the pressure of twenty engines if necessary.

In the case of the Alabama and Chattanooga Railroad Company vs. the South and North Railroad Company, involving the title to certain lands in Alabama covered by their two overlapping land grants, Secretary Teller, of the Department of the Interior, awards the lands to the first-named company, and directs that certificates be issued accordingly.

Hansom cabs are run in Philadelphia by the Pennsylvania Railroad Company, and passengers are carried to nearly any point in the city for twenty-five cents, or two persons for the same price. A lively man has had some vehicle built in close imitation, and travelers get into them without knowing any difference, until called upon to pay a dollar or two.

THE Negritos, who inhabit the Philippine Islands, have an interesting custom. Before eating his meal a Negrito must invite aloud any hungry person who may happen to be within hearing to join him at the meal. Whoever violates this custom is killed.

#### THE SALMON CAR HEATER



"36 per cent of coal saved and the car kept noticeably warmer !"

by using THE SALMON CAR HEATER. It Insures Safety from Fire in case of Accident, Economy in Fuel and RAPID CIRCULA-TION. It heats quickly, is SELF-REGULA-TING, and can be used for

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The Water Tubes do not come in contact with the Coals, but occupy the Smoke Flue in such a manner as to absorb the greatest amount of heat from Coal in a low state of combustion without danger of chilling the fire.

Once filled with coal the fire will last from 24 to 60 hours, according to weather, without replenishing, as proved by actual test.

At the last "Mechanics' Fair" it received the Silver Medal, being the highest award to heaters of any kind.

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MADE ENTIRELY OF STEEL

STEEL ONE MAN with it can easily move a loaded car.

Manufactured by E. P. DWIGHT. DEALER IN RAILROAD SUPPLIES, 407 LIBRARY ST...

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Wm. A. Guest & Co., MECHANICS' BANK BUILDING. Nos. 31 and 33 Wall Street, - New York.

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Statement of the United States,				
DEST BEAD	LING :	INTERES	er.	
percent funded loan of 1881, continued at 31/2		imount tstandis	ıg.	Accrued Interest.
per cent loan of July 12,	\$99	,326,200	00	\$579,402 8
1882	289	,563,950	00	1,447,819 7
of 1891	250	,000,000	00	937,500 0
4 per cent refunding cer-	738	,950,550	00	7,389,505 5
tificates		404,750		4,047 5
fund	14	,000,000	00	210,000 0
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DEBT ON WHICH INTEREST	HAS			
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nity stock, 1846-'52			104 9	
6 per cent. bonds, 1847-'67 6 per cent. bounty land so		I,	250 00	22 0
5 per cent. Texas indem	ity	3,	275 0	213 0
stock, 1850-'64			000 0	
5 per cent. bonds, of 1858	-,74		0000	
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361,550 00

50,400 00

359,000 00

75,000 00

567,750 00

152,100 00

1,700 00

3,000 00

16,300 00

32,400 00

4,000 00

2,960 00

5,000 00

70,450 CO 18,335 25

283,250 00 42,710 69

798,200 00 109,488 58

247,950 00 20,682 99

7,271,500 00 36,257 89

1,707,500 00 19,721 44

1,800,350 00 18,203 98

82,525 35 2,668 06

217,420 00 44,447 11

138,500 00 20,366 05

7.800 00 1,558 50

5,315 15

11,945 73

4,830 00

1,335 66

8,406 00

4,236 13

200 60

57 00

99 oo 364 50

1,104 43

2,075 35

253 48

244 10

394 31

994 40

s per cent. bonds, of 1858-74
5 per cent. bonds, of 1850-71
6 per cent. 5-20 bonds, 1852,
called.
6 per cent. 5-20 bonds, June
1864, called...
6 per cent. 5-20 bonds, 1865,
called...
5 per cent. 10-40 bonds, 1864,
called per cent. Consol. bonds, 

Aggregate of debt on which Interest has ceased since maturity.....\$14,887,015 26 \$446,814 38 DEBT BEARING NO INTEREST.

\$5,339 96 ractional currency, 1862, 1863 and 1864 \$15,398,008 17 ess amount es-timated as lost or destroyed act of June 8,375,934 00 7,022,074 17

Aggregate of debt bearing no ...\$500,815,885 17 \$5,339 96

ARREST A	- CAMERACONI	
interest in	Amount Outstanding.	Interest.
cent, con-	\$99,326,200 00 250,000,000 00	
cent	738,950,550 00	

5,339 96

Bonds at 3 per Refunding certificates... Navy pension fund, 3 p.c \$1,392,245,450 00 \$12,067,188 54 Debt on which interest has 14,887,015 26 446,814 38 ceased since maturity. Debt bearing no int., viz: Old demand and legal

\$500,815,885 17 Unclaimed interest

Debt bearing

coin, viz: Bonds at 5 per tinued at 3

Bonds at 4 % per Bonds at 4 per

\$1,907,948,350 43 \$12,519,342 88 including interest due and unpaid...\$1,920,467,693 31 AMOUNT IN TREASURY.

Interest due and unpaid......

Debt on which interest has ceased..... \$1,489,912 96 14,887,015 26 446,814 38 137,468,500 00 0.585,000 00 149 037,773 87

\$312,924,016 47 Debt, less am't in Treas'y Jan. 1, 1883...\$1,607,543,676 84 Debt, less am't in Treasury Dec. 1, 1882. 1,622,956,899 69 Decrease of debt during the month..... \$15,413,222 85

Decrease of debt since June 30, 1882.... \$81,370,783 88 BONDS ISSUED TO THE PACIFIC BAILBOAD COMPANIES, IN-

TEREST PAYABLE IN LAWFUL MONEY.

	Amount Outstanding.	Accrued Interest not paid.
Central Pacific bonds, 1862-64		\$776,553 60
Kansas Pacific bonds, 1862-64		189,090 00
Union Pacific bonds, 1862-64 Cent. Branch Union Pacific	27,236,512 00	817,095 36
bonds, 1862-64	1,600,000 00	48,000 00
West'n Pacific Bonds, 1862-64		59,116 80
Sioux City & Pacific bonds, 1862-64	1,628,320 00	48,849 60

Totals ..... \$64.623.512 00\$1.038.705 26

#### Railroad Pass Law.

THE case of the Buffalo, Pittsburgh and Western Railroad Company against O'Hara, error to the Court of Common Pleas of Forest county, was decided by the Supreme Court of Pennsylvania on the 30th ult. The facts of the case are as follows: Mrs. Ellen O'Hara, wife of an employé, was riding on a pass between Oil City and Trunkyville, in Forest county. The train was dashed into and she was scalded and otherwise injured. The jury awarded her \$3,000, which sum was reduced to \$2,000. On the face of the pass, in fine print, was a clause purporting to be a release of all liability for damage to the person or baggage of the party using the pass, resulting from the negligence of the company or its servants. The condition was in the following terms: " Conditioned that the person accepting this pass assumes all risk of accident to his person or property without claims for damages on this corporation. Good only for the person named." It was signed by the Superintendent and Supervisor. The Supreme Court held that "a common carrier

cannot protect himself by special contract from liability for negligence. Against his extraordinary liability as a common carrier he may protect himself by such an agreement, but not from his liability as a simple bailee. It may well be doubted whether the provision in this pass being against accidents can be held applicable at all to cases where the injury has resulted from negligence. If the free pass in this case was unlawful, the conductor should have demanded the regular fare, and his not doing so did not make O'Hara or his wife trespassers or destroy their rights as passengers." The judgment of the lower court was affirmed.

#### The Automatic Brake.

APPENDED is the substance of a recent report submitted to the president of the American Brake Company, St. Louis, by its vice-president and general agent. The document is dated December 5.

"Thirty daily inspections, ending 31st ult., of the cars equipped with our Automatic Brakes upon the St. Louis and San Francisco Railway, as they have come during that time into St. Louis thedepot and yards, show that we have examined a total of 690 cars, of which 112 had been running one month; sixty-eight two months; 136, three months; three, four months; one, five months; three, six months; three, seven months; 149, nine months; 147, ten months; thirty-one, eleven months; thirteen, twelve months; ten, eighteen months, and fourteen, twenty-two months. Of these, 641 were O. K. in all respects, needing no attention; forty-nine needed repair and putting on new pieces in yards. The total cost of new pieces required for the above repairs was \$18.18. Of the cars requiring repairs thirty-eight were of the horizontal pattern, and eleven were of the upright pattern."

WE have heard of a great many Chinese puzzles, but the hardest one to guess lives in Washington. We don't know his name, but he is the Minister from China to this great Republic. He is a very wealthy man, but he actually lives in the land of show without any show at all. He does not buy his books by their bindings nor his pictures by the square foot, which make some wealthy citizens wonder how in the world he does buy them. He gives \$100,000 per year to the support of the poor Hon Nan, which, in the opinion of a vast number of good Christian people, is a shameful waste of money which might be used in champagne suppers and in equippages and flunkies well calculated to make the people stare and positively turn green with envy. Does this poor pagan think he can teach us-us Americans-a lesson in true philanthropy? Now, the puzzle is to know what our duty is in view of this grave fact. Shall we any longer send missionaries to China, or shall we receive this eccentric gentleman as a missionary to us? Is he a pagan and are we Christians? We confess that the more we think of it the more mixed we get. Perhaps it is that we have the theory and no practice, while he has the practice and no theory.

ADVERTISE in the RAILBOAD JOURNAL.

# STRIKING HEAD LINES.

Are used to call attention to the fact that this is an advertisement of the CHICAGO, MILWAUKEE & ST. PAUL RAILWAY.

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Stations, Crossings, Drawbridges, Switches, Cabooses, or Rear-of-Train Lanterns, etc.

#### They will not Blow out or Freeze out.

There is but one opening in the top for the smoke to escape, and that opening is always kept on the opposite side from the wind by the top resting on a point, and is turned with the wind by the weather vane attached

It also takes air through the same opening through an outer chimney, a double top of the frame and tubes running down to the lamp.

The air can also be taken from the inside of the building through the gas pipe holder, which is another way to head off the storms.

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[Mention this paper.]

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#### The Mysteries of Metals.

Norwithstanding the wonderful progress, says an exchange, that has been made during the last half century in the constitution and working of the useful metals, there is yet a vast deal to be learned. The metals, when pure, are commonly supposed to be simple elements, yet there are some reasons for supposing that it may be proved that at least some of them are compounds. Even the great Faraday gave utterance to the thought that the dreams of the alchemist might yet be realized—that gold and other metals might be found to be compounds, and that means might be devised whereby those compounds might be separated, and afterwards so differently reunited that the baser metals might be converted into precious. The changes which are wrought 'n iron and steel by converting, annealing and hardening processes are far from being understood by the most advanced metallurgists of the present day. The mysteries of bydrogen gas and its intimate relations with iron are as much a puzzle as they were fifty years ago, and the theory advanced by Graham, that hydrogen is a metal, is still maintained by many chemists. It is only a few years ago that absolutely pure iron became known to scientists, and it is now shown to be a metal almost as "unstable as water," and still found in the laboratory as a great curiosity. What had previously been known as pure iron was shown by Jacobi to be a compound of iron and hydrogen. He first separated the two so-called elements. During the process the iron increased in volume, changed from a dark to a silver-white substance, very ductile, and so soft as to be nearly as readily cut as lead. The experiment proved that hydrogen played an important part in hardening and tempering-as much so as carbon-but how or why none know to this day. It is found that much more difficulty is experienced in rolling and otherwise manipulating gold in a factory where much electricity is generated by the action of machinery than in a room where no machinery is in operation, and where, consequently, frictional electricity is absent. The trouble is manifested in a disposition of the edges of the plates of thin bars to crack. Many other peculiarities, already known, might be mentioned, and there is no doubt that closer observation will largely increase the number of curious and yet inexplicable phenomena con nected with the working and general characteristics of the metals, both useful and precious. -Mechanical News.

A HANDSOMELY dressed man entered an Arkansaw newspaper office, and drawing out his pocketbook said to the editor:

"I've got something here for you. I've been an admirer of your paper for some time and-"

"Wish to subscribe for a year or six

months?"

"I don't wish to subscribe. You know we've just had Thanksgiving and I jotted down here a little something—Here it is. 'The people of the United States may rejoice at Thanksgiving,

but foreign powers, particularly Turkey—'
The loud report of a horse-pistol rang
through the quiet place. A coroner cast his gloomy shadow on the premises. Verdice "Justifiable homicide."—Arkansaw Traveler. Verdict,

#### List of Master Car Builders

OF THE RAILBOADS OF THE UNITED STATES AND CANADA.

Adirondack Railroad: Jas. J. Traver, Saratoga, N. Y. Albert Railway: Jas. McKay, Hillsboro, N. B. Allegheny Valley Railroad: R. Gunning, Verona, Pa. Arkansas Midland Railroad: J. B. Johnson, Helens, Ark. Asheville and Spartanburg Railroad: W. B. Brown, Spartanburg, S. C.

Baltimore and Ohio Railroad: E. Ohio Riv. div., L. Packard, Baltimore, Md.
Bangor and Piscataquis R. R.: J.W. Comins, Oldtown, Me. Bedford, Springville, Owensburg and Bloomfield Railway: Richard G. Elliott, Bedford, Ind.
Bell's Gap Railroad: A. Zimmerman, Bellwood, Pa. Bodie Lumber Co: E. M. Luckett, Bodie, Cal.
Boston, Concord, Montreal and White Mts: L. D. Pickering, Lake Village, N. H.
Boston, Hoosac Tunnel and Western: John S. Ellis, Mechanicville, N. Y.
Roston, Revere Basch and Lynn: John Coghlan, Boston.

ton, Revere Beach and Lynn: John Coghlan, Boston,

Boston and Albany: F. D. Adams, Allston, Mass. Boston and Lowell and Concord: J. T. Gordon, Concord, NH

N. H.
Boston and Maine: D. C. Richardson, Lawrence, Mass.
Boston and Providence: Jno. Lightner, Roxbury, Mass.
Bradford, Bordell and Kinzua: John Delaney, Bradf'd, Pa.
Buff., Pittsburg and Wn: John Monks, 'il City, Pa.
Burlington, Cedar Rapids and Northern: R. W. Bushnell, Cedar Rapids, Ia.
Burlington and Lawrelle: F. G. Brawnell, Problem of M.

Burlington and Lamoille: F. G. Brownell, Burlington, Vt.

Camden and Atlantic: Samuel Wills, Camden, N. J. Canada Southern: Robert Potts, St. Thomas, Ont. Canadian Pacific: F. C. Butterfield, Winnipeg, Man. Cape Fr and Yadkin Val.: Isaac W. Clark, Fayetteville,

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Catasauqua and Fogelsville: Chas. J. Holbach, Catasauqua, Pa.
Central and South-Western Railroads (Ga.).
Cen. Div.: R. M. Barthlemess, Savannah, Ga.
Southwestern Div.: James A. Knight, Macon, Ga.
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Central Railroad of New Jersey.
Central Div.: Geo. Hackett, Elizabethport, N. J.
N. J. 80. Div.: Chas. N. Sawyer, Manchester, N. J.
Central Iowa: T. L. Seevers, Marshalltown, Ia.
Central Pacific: Benj. Welch, Sacramento, Cal.
Western, Visalia and Tulare Divs. and Northern: W.
D. Ludlow, Oakland, Cal.
Central Vermont Railroad.
Rut. Div.: N. L. Davis, Rutland, Vt.
New London and No'n: S. O. Banks, New London, Ct.
Chattarol: Joseph P. Burleigh, Ashland, Ky.
Cherokee: C. E. Scruton, Cedartown, Ga.
Chesapeake and Ohio Railway.
Eastern Div.: J. N. King, Richmond, Va.
Hunt. Div.: H. C. Bassinger, Huntington, W. Va.
Chicago, Milwaukee and St. Paul Railroad.
Southwestern Divs.: E. A. Eddy, Racine, Wis.
Northern Div.: Wm. E. Kittridge, Milwaukee, Wis.
Chicago, Pekin and Southwestern: J. N. Chilson, Streator, Ill.

Rock Island and Pacific: B. K. Verbryck, Chi-

Chicago, Rock Island and Facally, 22 Cago, Ill.

Ill. Div.: Samuel Pullman, Chicago, Ill.

Ia. Div.: Chas. M. Leonard, Davenport, Ia.
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Mass.

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Alabama Div.: W. W. Pierce, Selma, Ala.
Elizabeth City and Norfolk: J. S. Whitworth, Norfolk, Va.
Eureka and Palisade: A. S. Longley, Palisade, Nev.
Europ. and No. Amer.: A. O. Bailey, Mattawamkeag, Me.

Fitchburg: J. W. Marden, Charlestown, Mass.
Flint and Pere Marq.: R. McPherson, E. Saginaw, Mich.
Florida Southern: M. R. Miller, Palatka, Fla.
Florida Transit: G. Hernandez, Fernandina, Fla.
Ft. Madison and N'hwestern: L. Lamb, Ft. Madison, Ia.
Ft. Wayne, Cin. and Louisv.: C. W. Hollister, Jackson,

Galveston, Harrisburg and San Antonio: James Alexan-

der, Harrisburg, Tex.
Georgia: T. M. Preval, Augusta, Ga.
Georgia Pacific: J. B. Shelton, Greenville, Miss.
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Illinois and St. Louis: Charles Rotha, E. St. Louis, Ill. Intercolonial: Edw. Shaffer, Moncton, N. B. Iron Mountain and Helena: Wm. Summers, Helena, Ark

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Jamesville and Washington: J. E. Lordley, Dymond City, N. C. Junction and Breakwater; Breakwater and Frankford and Worcester: W. H. Virden, Lewes, Del. Kansas City, Fort Scott and Gulf: A. N. Montier, Kansas City, Mo. Kentucky Central: J. L. Hackathorn, Covington, Ky. Knox and Lincoln: C. L. Turner, Bath, Me.

Anox and Lincoin: C. L. Turner, Bath, Me.

Lake Shore and Michigan So'n: John Kirby, Cleveland, O.

Buffalo Div.: A. C. Robson, Buffalo, N. Y.

Erie Div.: J. Withycombe, Cleveland, O.

Toledo Div.: W. O. Smith, Norwalk, O.

Western Div.: Frank O. Brny, Adrian, Mich.

Lehigh Valley: John S. Lentz, Packerton, Pa.

Little Rock, Miss. River and Texas: F. Hufsmith, Arkansas City, Ark.

Little Rock and Fort Smith: James Malone, Argenta, Ark.

Long Island: C. A. Thompson, Long Island City, N. Y.

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Marquette, Mich.

Memphis and Little Rock: P. Twitchell, Argenta, Ark.

Mexican Central: J. H. O'Brien, City of Mexico.

Michigan Central: Robert Miller, Detroit, Mich.

Midland of Canada: Edward Douglas, Port Hope, Ont.

Victoria Div.: H. H. Harry, Lindsay, Ont.

Toronto and Nipissing Div.: Chas. E. Caron, Ux
bridge Ont.

bridge, Ont.

Bridge, Ont.

Mineral Range: T. J. Shellhorn, Hancock, Mich.

Mississippi and Tenn.: S. J. Bolton, Memphis, Tenn.

Missouri Pacific: H. H. Sessions, St. Louis, Mo.

[TO BE CONTINUED].

#### Contributory Negligence.

In the case of Dowling vs. the New York Central and Hudson River Railroad Company the Court of Appeals of New York decided in favor of the plaintiff. In this case a child nine years of age was injured by a locomotive as she was crossing a railroad track. She looked to the west for trains but not to the east, as one of the railroad shops obstructed the view. There was no flagman at the crossing, and no danger alarm was given by the engineer. A suit was brought for damages, and the company relied for its defense on the contributory negligence of the child in not showing due care in crossing the track. Judge Earl, in the opinion, said: "The question of due care by the child is to be determined by the jury; we can-not say, as matter of law, that she contributed to her injuries. An infant is bound to use that degree of care only which may be reasonably expected from a person of her age, and the jury in considering this must bring in and examine all the circumstances of the casualty."



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- 1. THE AMERICAN RAILROAD JOURNAL gives great prominence to descriptions of such new inventions as relate to its proper class of subjects.
- 2. Its columns contain at least a notice of every patent granted in the United States upon railroad and kindred inventions. In many cases more than this is desirable, and
- 3. Its editors invite communications f. om inventors regarding their inventions.
- 4. Such communications are treated with a view to their publication, and appear within these columns in all cases when this is desirable.
- 5. This is the oldest railroad journal in the world, and therefore
- Inventors cannot do themselves better service in order to advance their interests, than
  to act upon the foregoing information.

#### List of Patents for Inventions Relating to Railways, Manufacturing, Mining, Machinery, Etc.

#### BEARING DATE OF JANUARY 2, 1883.

- 269,839. Guard-Gate for Care: Addison Du Bois, New York.
- 269,857. Car-Coupling: John W. Hollins, Cincinnati, Ohio. 269,883. Car-Coupling: Edward M. Richardson, Laco-
- 269,883. Car-Coupling: Edward M. Richardson, Laconia, N. H., assignor to himself and George L. Mason, same place.
- 269,9c6. Hand Car: Warren J. Willits, Three Rivers, Mich., assignor to the Sheffield Velocipede Car Company, same place.
- 269,917. Passenger-Car: Edwin Chesterman, Philadelphia, Pa.
- 269,926. Car-Axle: George Farnum, Swampscott, Mass. 269,632. Jack for Raising Railroad-Tracks: Jonathan W. Harrison, Ypsilant<sup>†</sup>, Mich.
- 269,955. Detonating Bailroad-Track Signal: Joseph A. Paullin, Mexico, Mo.
- 269,956. Car-Coupling: Charles H. Pelton, Grand Rapids, Mich., assignor of one-third to John A. Wheeler, same place.
- 269,958. Railroad-Switch Signal: Henry L. Pinney, South Windsor, assignor of one-half to Augustus H. Baker, Hart ord. Conn.
- 26,3,963. Car-Door Fastening: John Scanlan, Poughkeepsle, assignor to himself and David Hoit, Albany, N. Y. 269,965. Pneumatic Fire-Extinguisher: William Sellers, Philadelphia, Pa.
- 269,978. Relief-Valve for Engine-Cylinders: Jerome Wheelook. Worcester, Mass.
- 269,979. Injec.or-Condenser: Jerome Wheelock, Worcester, Mass.
- 269,988. Stock-Car: Adolph V. Anderson, Virginia City, Nev.
- 269,995. Car-Axle Box: Jackson R. Baker, Jersey City, N. J., assignor to the National Safety Car Bearing Co., of New York.
- 269,999. Car-Coupling: George W. Bedbury, Portland, Oreg., assignor of one-half to A. E. Berthwick, same place.
- place. 270,000. Caloric-Engine: Thomas Beesley, Muscatine, Iowa.
- 270,002. Car-Brake: Josiah Bettis, New Albany, Ind. 270,000. Straight-Way Valve: Daniel R. Burns, Dayton,
- Ohio, assignor to himself and Albert L. Jackson, Washington, D. C.
- 270,014. Car-Coupling: Edward S. Carter, Keokuk, Iowa-270,032. Car-Coupling: Frank L. Eager, Palmer, Mass.
- 270,057. Car-Coupling: Robert W. Hames and Alwyn D. Hankerson, Readfield, Mo.
- 270,084. Self-Leveling Berth: John H. Laskey, Boston, Mass., assignor of one-half to Isaac F. Dobson, same place.
- 270,092. Combination Implement for Sealing Packages and Railroad Cars: Theodore E. Miller, Houston, Tex.

- 270;103. Car-Coupling: Asa Kenton Owen, Tennessee,
- 270,119. Nnt-Lock: Edward P. Price, Canton, Ohio, assignor of one-half to Dudley Reed, same place.
- 270,124. Nut-Lock: William H. Repass, Martin's Station, assignor of one-half to Alfred Sult, Wytheville, Va.
- 270,125. Watchman's Electric Time-Detector: James E. Richards, Cedar Keys, Fla.
- 270,126. Refrigerating Chamber for Railway Cars, etc.: Job H. Ridgway, Philadelphia, Pa., (Francelia W. Ridgway, Administratrix of said Job H. Ridgway, deceased).
- 270,152. Car-Truck: Ira C. Terry, St. Louis, Mo.
- 270,153. Car-Truck: Ira C. Terry, St. Louis, Mo.
- 270,160. Rotary Steam-Engine: George W. Wade and Joshua M. Wardell, Cadillac, Mich.
- 270,166. Lathe-Stand: Edmund A. Warren, Brooklyn, N. Y., assignor to himself and Thomas J. Moore, same place.
- 27c, 167. Locomotive and Traction Engine: Francis W. Webb, Crewe, county of Chester, England.
- 270,171. Car-Coupling: William Adams, Salem, Oreg. 270,172. Car-Axle-Box Lid: Jackson R. Baker, Jersey City, N. J., assignor to the National Safety Car Bearing
- Co., of New York. 270,174. Brake-Lever: John L. Baker, Racine, Wis., assignor to S. Freeman & Sons, same place.
- 270,186. Electric Vehicle: Joseph R. Finney, Pittsburgh, assignor to himself and Thomas B. Kerr, Allegheny City, Penn.

#### REISSUES.

10,265. Railway-Crossing: Henry F. Cox, Altoona, Pa.

#### BEARING DATE OF JANUARY 9, 1883.

- 270,205. Railroad-Signal: Charles R. Collins, La Fayette, Ind., assignor of one-third to John Schrack, same place.
- 27c, 209. Automatic Electric Railway: Edward N. Dickerson, Jr., and Charles G. Curtis, New York.
- 270.215. Car-Coupling: Harvey Fraser, Nepeuskun, Wis. 270,236. Automatically Cooling Hot Journals: Franz O. Matthiessen, Tryington, N. Y.
- 270,248. Electric Car-Brake: Albert S. Parsons, Huntington, W. Va.
- 270,252. Fastening for Car-Doors: William Scharnweber, Jefferson, assignor of one-half to Angel Horner, Chicago, Ill.
- 27c,262. Car-Axle Box: Peter Sweeney, New York, assignor of one-third to Lemuel Morgan, same place,
- 270,283. Label-Holder for Cars: Robert S. Coulter, Swissvale, Pa., assignor of one-half to Andrew C. Coulter, same place.
- 270,300. Car-Brake: Charles S. Gerritson, Waltham,
- 270,305. Railroad-Signal: Joshua Gray, Medford, Mass.
   270,306. Car-Wheel Cleaning Device: P. Henry Griffin, Detroit, Mich.
- 270,308, Traction-Eng ne: Albert S. Hanscom, Moorhead, Minn.
  - o . Hand-Car: Edward B. Linsley, Three Rivers Mich., assignor to the Sheffield Veiocipede Car Company, same place,
- 270,33c. Locomotive-Tender: Thomas Mulheirn, Providence, B. I.
- 270,349. Car-Spring: Abrabam Strom, Mauch Chunk, Pa. 27c,372. Nut-Lock: Marcus M. Beeman, Syracuse, N. Y.
- 270,374. Car-Coupling: James Billups, Milton, W. Va. 270,375. Hand-Car: Joseph D. Billings, Salem, Mass. 270,300. Car-Coupling: George A. Cline, Philadelphia
- 27c, 39c. Car-Coupling: George A. Cline, Philadelphia, Pa.
- 27c,405. Portable Transfer Track: Leo Ehrlich St. Louis, Mo.
- 270,412. Car-Coupling: James P. Gaines, Kuttawa, Ky. 27c,418. Engine: Perry P. Goodrich, San Francisco, Cal., assignor of one-fourth to Dexter Salisbury, same place.
- 270,421. Car-Axle Box: Williams F. Grassler, Williamsport, Pa.
- 27c,423. Spark-Arrester for Locomotives: David Groesbeck, New York, assignor to the Groesbeck & Wright Spark Arrester Company, same place,
- 270,431. Speed-Recorder: John C. Henry, Kansas City, Mo., assignor of one-half to L. W. Towne and P. F. Clinton, same place, and J. L. Barnes, Lawrence Kans.

- 270,440. Car-Brake: Alden D. Kilbern and William F. Smith. Tueson. Ariz.
- 270,445. Spark-Arrester: Franklin W. Levering, Baltimore, Md.
- 27c,462. Coupling Retainer: Walter W. Nevegold, Bristol, Pa. \*
- 270,480. Railway-Velocipede: Francis W. Randall, Tekonsha, assignor, by direct and mesne assignments, to Wm. E. Hill and George W. Miller, both of Kalamazoo. Mich.
- 270,507. Car-Brake: Famuel H. Terry, Chicago, Ill.
- 270,513. Elevated Railroad and Car: Samuel R. Thompson, Brookline, Mass.
- 270,523. Car-Coupling: Elbridge Webber, Gardiner, Me., assignor of one-half to Charles Gifford, same place.
- 270,528. Air-Brake Pressure Regulator: George Westinghouse, Jr., Pittsburgh, Pa.
- 27c,541. Locomotive Ash-Pan: Caleb K. Dodge, Niles, Mich.
- 27c,544. Railroad-Switch Bridle: Josiah Gray, Chicago, Ill., assignor to himself, and Westley Hol enteck, Connad B. Sheiler, and Jacob R. Reed, all of same place.
- 1 ad B. Sheiler, and Jacob R. Reed, all of same place. 270,552. Compound Steam-Engine: David N. Melvin, Linoleumville, N. Y.
- 270,553. Street-Car Heater: William D. Nelson, New York.

#### The Wheeled Scraper.

In the year 1874 was first patented the wheel scraper or self-loading and self-dumping cart, the invention of an experienced contractor, whose only object was to cheapen the work of grading on his own contracts. During the eight years between then and now, three improvements in the scraper have been patented and introduced, and a notice of its peculiarities and capabilities cannot fail to be of service.

The box of the invention is made of one piece of steel bent up in curved lines at the sides and back, attached to an iron frame which suspends it from an iron axle. When loaded, the whole weight is carried on two wheels with broad tires, making a light draft and reducing friction to perhaps the lowest point possible. Its value on hauls of from fifty to sixty feet is found to be superior, and on those of from six hundred to fourteen hundred feet, the economy of its use as compared with that of wagons and shovels and a corps of workmen, receives practical every-day demonstration. The STUBBS-SCHULTZ Patent Wheeled Scraper or Self-Loading and Self-Dumping Cart, by which name it is known, fills any kind of soil in which the drag-scraper will fill, and can be used on embankments of any height. There is no waste attending its use, and it is so durable as to prove very cheap to those who employ it. It saves much labor, is so made as to be used with the same speed as wagons, and is in use, to the number of many thousands, on the railroads of this and other countries. Because it is found that a great amount of earth can be moved in a short time, with little force and expense, by the Stubbs-Schultz-scraper, a further knowledge of it is desirable by all who have or will have undertakings in which it could be made available. These should write to the Western Wheel Scraper Company, Mt. Pleasant, Iowa, for further information.

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